INDEX

SHEET NO.	PLAN REFERENCE NO.	TITLE
		VOLUME 1
1 - 4	IN1 - IN4	INDEX
5	CT1	CERTIFICATION SHEET
6 - 7	VM1 - VM2	VICINITY MAP
8 - 47	SQ1 - SQ40	SUMMARY OF QUANTITIES
48 - 51	STP1 - STP4	STAGING AND STOCKPILE PLAN
		STAGING - STAGE 1
52 - 53	DO1-1 - DO1-2	DETOUR OVERVIEW - STAGE 1
54 - 55	TS1-1 - TS1-2	TRAFFIC SEQUENCING - STAGE 1
56 - 57	TR1-1 - TR1-3	TEMP. ROADWAY SECTIONS - STAGE 1
58 - 59	QT1-1 - QT1-2	QUANTITY TABULATION - STAGE 1
60 - 80	D1-1 - D1-21	DETOUR PLAN - STAGE 1
		STAGING - STAGE 2
81 - 82	DO2-1 - DO2-2	DETOUR OVERVIEW - STAGE 2
83 - 84	TS2-1 - TS2-2	TRAFFIC SEQUENCING - STAGE 2
85 - 87	TR2-1 - TR2-3	TEMP. ROADWAY SECTIONS - STAGE 2
88	QT2-1	QUANTITY TABULATION - STAGE 2
89 - 98	D2-1 - D2-10	DETOUR PLAN - STAGE 2
99 - 100	TPR2-1 - TPR2-2	PROFILE & SUPERELEVATION - STAGE 2
		STAGING - STAGE 3
101 - 102	DO3-1 - DO3-2	DETOUR OVERVIEW - STAGE 3
103	TS3-1	TRAFFIC SEQUENCING - STAGE 3
104	TR3-1	TEMP. ROADWAY SECTIONS - STAGE 3
105	QT3-1	QUANTITY TABULATION - STAGE 3
106 - 124	D3-1 - D3-19	DETOUR PLAN - STAGE 3
		STAGING - STAGE 4
125 - 126	DO4-1 - DO4-2	DETOUR OVERVIEW - STAGE 4
127 - 129	TS4-1 - TS4-3	TRAFFIC SEQUENCING - STAGE 4
130 - 133	TR4-1 - TR4-4	TEMP. ROADWAY SECTIONS - STAGE 4
134 - 135	QT4-1 - QT4-2	QUANTITY TABULATION - STAGE 4
136 - 157	D4-1 - D4-22	DETOUR PLAN - STAGE 4
158 - 161	TPR4-1 - TPR4-4	PROFILE & SUPERELEVATION - STAGE 4
		STAGING - STAGE 5
162 - 163	DO5-1 - DO5-2	DETOUR OVERVIEW - STAGE 5
164 - 165	TS5-1 - TS5-2	TRAFFIC SEQUENCING - STAGE 5
166 - 167	TR5-1 - TR5-2	TEMP. ROADWAY SECTIONS - STAGE 5
168	QT5-1	QUANTITY TABULATION - STAGE 5
169 - 179	D5-1 - D5-11	DETOUR PLAN - STAGE 5
180 - 188	TDE1 - TDE9	TEMP. DETAILS STAGE 1 - STAGE 5

INDEX (CONTINUED)

SHEET NO.	PLAN REFERENCE NO.	TITLE
		VOLUME 2
189 - 192	IN5 - IN8	INDEX
193	CT2	CERTIFICATION SHEET
194 - 195	TDSN1 - TDSN2	STRUCTURE NOTES - TEMP. DRAINAGE
196	TD0	TEMP. DRAINAGE LEGEND SHEET
197 - 215	TD1-1 - TD1-19	TEMP. DRAINAGE PLAN - STAGE 1
216 - 226	TD2-1 - TD2-11	TEMP. DRAINAGE PLAN - STAGE 2
227 - 229	TP2-1 - TP2-3	TEMP. DRAINAGE PROFILES - STAGE 2
230 - 245	TD3-1 - TD3-16	TEMP. DRAINAGE PLAN - STAGE 3
246 - 249	TP3-1 - TP3-4	TEMP. DRAINAGE PROFILES - STAGE 3
250 - 272	TD4-1 - TD4-23	TEMP. DRAINAGE PLAN - STAGE 4
273	TP4-1	TEMP. DRAINAGE PROFILES - STAGE 4
274 - 275	TDD1 - TDD2	TEMPORARY DRAINAGE DETAILS
276 - 290	RS1 - RS15	ROADWAY SECTIONS (FINAL)
291 - 297	RD1 - RD7	ROADWAY DETAILS
298	LS1	LEGEND
299 - 300	QTAS1 - QTAS2	QUANTITY TABULATION - ALIGNMENT / SITE PREPARATION PLAN
301 - 330	ASP1 - ASP30	ALIGNMENT / SITE PREPARATION PLAN
331 - 332	PR1 - PR2	TE PROFILE & SUPERELEVATION
333 - 361	PR3 - PR31	LE PROFILE & SUPERELEVATION
362	PR32	TW PROFILE & SUPERELEVATION
363 - 389	PR33 - PR59	LW PROFILE & SUPERELEVATION
		VOLUME 3
390 - 393	IN9 - IN12	INDEX
394	CT3	CERTIFICATION SHEET
395	EC0	TESC OVERVIEW
396 - 425	EC1 - EC30	TESC PLAN
426 - 428	ECD1 - ECD3	TESC DETAILS

PLAN REF NO

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SHEET ## OF ## SHEETS

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PROJ. ENGR.	A. BYRD
REGIONAL ADM.	T. TREPANIER

REVISION	DATE	BY

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JOB NUMBER 19Y007

CONTRACT NO.

FED.AID PROJ.NO.

LOCATION NO.

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Washington State Department of Transportation

I-90
CABIN CREEK I/C TO W EASTON I/C
PHASE 3 - ADD LANES/WILDLIFE BRIDGES

INDEX

Plot 33

PLAN REF NO
IN33

SHEET 1526 OF 1783 SHEETS

INDEX

SHEET NO.	PLAN REFERENCE NO.	TITLE
429	STN1	STRUCTURE NOTES - DRAINAGE GENERAL NOTES
430 - 465	STN2 - STN37	STRUCTURE NOTES - DRAINAGE
466 - 495	DR1 - DR30	DRAINAGE PLAN
496 - 545	DP1 - DP50	DRAINAGE PROFILES
546 - 560	DPP1 - DPP15	DITCH PLANS AND PROFILES
561 - 576	DD1 - DD16	DRAINAGE DETAILS
577 - 582	HCZ1 - HCZ6	HYDRAULIC CONNECTIVITY ZONES
		VOLUME 4
583 - 586	IN16 - IN16	INDEX
587	CT4	CERTIFICATION SHEET
		STREAM PLANS
588 - 593	CR1-1 - CR1-6	UNNAMED CREEK (MP 64.4) SITE PLAN
594 - 600	CR2-1 - CR2-7	CEDAR CREEK SITE PLAN
601 - 606	CR3-1 - CR3-6	UNNAMED CREEK (MP 65.1) SITE PLAN
607 - 611	CR4-1 - CR4-5	TELEPHONE CREEK SITE PLAN
612 - 616	CR5-1 - CR5-5	HUDSON CREEK SITE PLAN
617 - 623	CR6-1 - CR6-7	UNNAMED CREEK (MP 66.8) SITE PLAN
624 - 631	CR7-1 - CR7-8	UNNAMED CREEK (MP 67.1) SITE PLAN
632 - 637	CR8-1 - CR8-6	UNNAMED CREEK (MP 67.8) SITE PLAN
638	CD1	CREEK DETAILS
639 - 649	LWM1 - LWM11	LARGE WOODY MATERIAL
650 - 661	CG1 - CG12	CONTOUR GRADING PLAN
662 - 691	RR1 - RR30	ROADSIDE RESTORATION PLAN
692 - 693	RRD1 - RRD2	ROADSIDE RESTORATION DETAILS
694 - 699	HP1 - HP6	HABITAT PLAN
700 - 701	HD1 - HD2	HABITAT DETAILS
702 - 730	PV1 - PV29	PAVING PLAN
731 - 744	PD1 - PD14	CEMENT CONCRETE PAVEMENT JOINTS
745 - 756	QTB1 - QTB12	QUANTITY TABULATION - FENCE & BARRIER
757 - 786	FB1 - FB30	FENCE & BARRIER PLAN
		VOLUME 5
787 - 790	IN17 - IN20	INDEX
791	CT5	CERTIFICATION SHEET

INDEX (CONTINUED)

SHEET NO.	PLAN REFERENCE NO.	TITLE
792 - 804	WFD1 - WFD13	WILDLIFE FENCE DETAILS
805 - 807	WFD14 - WFD16	WILDLIFE RAMP JUMPOUT DETAILS
808	QTM1	QUANTITY TABULATION - PAVEMENT MARKING
809 - 814	MK1 - MK6	PAVEMENT MARKING PLAN
815 - 819	PMD1 - PMD5	PAVEMENT MARKING DETAILS
820	PMD6	LINEAR DELINEATION DETAIL
821	PMD7	RIGID GUIDE POST DETAIL
822	PMD8	FLEXIBLE GUIDE POST LOCATIONS
		TRAFFIC BARRIERS
823	INTB1	INDEX
824 - 836	TB1 - TB13	TRAFFIC BARRIERS
837 - 863	DB1 - DB27	DIFFERENTIAL BARRIER WALLS
		WALLS CW1-CW4 & CE1-CE4 - CEDAR CREEK BRIDGES
864 - 865	WS1 - WS2	CEDAR CREEK WALL PLAN & PROFILE
		WALLS TW1-TW2 & TE1-TE2 - TELEPHONE CREEK BRIDGES
866	WS3	TELEPHONE CREEK WALL PLAN
867	WS4	TELEPHONE CREEK WALL PROFILE
		WALLS HW1-HW4 & HE1-HE3 - HUDSON CREEK BRIDGES
868 - 869	WS5 - WS6	HUDSON CREEK WALL PLAN & PROFILE
		WALLS UW1-UW4 & UE1-UE4 - UNNAMED CREEK (MP67.1)
870 - 871	WS7 - WS8	UNNAMED CREEK (MP 67.1) WALL PLAN & PROFILE
		WALLS OC-RT & OC-LT - WILDLIFE OVERCROSSING
872	WS9	WILDLIFE OVERCROSSING WALL PLAN
873 - 874	WS10 - WS11	WILDLIFE OVERCROSSING WALL PROFILE
		WALLS WW1-WW2, WE1-WE2 & WWE1-WWE2 - WILDLIFE UNDERCROSSING
875	WS12	WILDLIFE UNDERCROSSING WALL PLAN
876 - 877	WS13 - WS14	WILDILFE UNDERCROSSING WALL PROFILE
		WALLS SW1-SW2, SE1-SE2 & SWE1-SWE2 - SPARKS ROAD
878	WS15	SPARKS ROAD WALL PLAN
879 - 880	WS16 - WS17	SPARKS ROAD WALL PROFILE
881 - 882	WS18 - WS19	WALL SECTIONS
883 - 886	WS20 - WS23	RETAINING WALL ARCHITECTURAL DETAILS
887 - 888	WS24 - WS25	CABLE FENCE DETAILS

PLAN REF NO
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SHEET ## OF ## SHEETS

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I-90
CABIN CREEK I/C TO W EASTON I/C
PHASE 3 - ADD LANES/WILDLIFE BRIDGES

INDEX

Plot 34

PLAN REF NO IN34

SHEET 1527 OF 1783 SHEETS

INDEX

SHEET NO.	PLAN REFERENCE NO.	TITLE
		WALLS 1-3
889	INW1	INDEX WALL
890 - 915	W1 - W26	WALL PLANS AND PROFILES
916 - 936	WD1 - WD21	WALL DETAILS
937 - 969	SP1 - SP33	SOLDIER PILE WALL PLANS
970 - 971	SF1 - SF2	SHOTCRETE FACING DETAILS
972 - 976	RB1 - RB5	RAILING BASE DETAILS
		VOLUME 6
977 - 980	IN21 - IN24	INDEX
981	CT6	CERTIFICATION SHEET
		SIGNS, ILLUMINATION & ITS
982 - 983	SS1 - SS2	SIGN REMOVAL SPECS
984	SS3	SIGN RELOCATION SPECS
985 - 986	SS4 - SS5	SIGN INSTALL SPECS
987 - 1015	TR1 - TR29	ELECTRICAL AND SIGN REMOVAL
1016 - 1045	SN1 - SN30	SIGNING PLAN
1046 - 1075	ITS1 - ITS30	ILLUMINATION AND ITS PLAN
1076 - 1080	ITS31 - ITS35	HUT LAYOUT
1081	TD1	UTILITY TRENCH DETAILS
1082 - 1083	TD2 - TD3	CCTV POLE DETAILS
1084 - 1089	TD4 - TD9	ITS - EQUIPMENT HUT
1090	TD10	ITS - WIRING DIGRAMS
1091	TD11	FIBER & UTILITY VAULT LOCATIONS
1092	TD12	UTILITY VAULT LAYOUT
1093	TD13	ITS & ELECTRICAL DETAILS
1094 - 1096	TD14 - TD16	FIBER SPLICING DIAGRAMS
1097	TD17	WILDLIFE CAMERA POLE DETAIL
1098 - 1099	TD18 - TD19	WILDLIFE OVERCROSSING DETAIL
1100	TD20	ITS - ABUTMENT WALL DETAIL
1101	TD21	VMS HEAT TRACE DETAILS
1102	TD22	CROSSCUT TRENCHING DETAIL
1103 - 1105	TD23 - TD25	VMS / VSL MOUNTING DETAILS

INDEX (CONTINUED)

SHEET NO.	PLAN REFERENCE NO.	TITLE
		CEDAR CREEK BRIDGE EB
1106	INB1	INDEX BRIDGE
1107 - 1136	BA1 - BA30	CEADR CREEK EASTBOUND BRIDGE PLANS
		CEDAR CREEK BRIDGE WB
1137	INB2	INDEX BRIDGE
1138 - 1166	BB1 - BB29	CEDAR CREEK WESTBOUND BRIDGE PLANS
		VOLUME 7
1167 - 1170	IN25 - IN28	INDEX
1171	CT7	CERTIFICATION SHEET
		TELEPHONE CREEK BRIDGE
1172	INB3	INDEX BRIDGE
1173 - 1200	BC1 - BC28	TELEPHONE CREEK BRIDGE PLANS
		HUDSON CREEK BRIDGE EB
1201	INB4	INDEX BRIDGE
1202 - 1266	BD1 - BD65	HUDSON CREEK EASTBOUND BRIDGE PLANS
		HUDSON CREEK BRIDGE WB
1267	INB5	INDEX BRIDGE
1268 - 1306	BE1 - BE39	HUDSON CREEK WESTBOUND BRIDGE PLANS
		UNNAMED CREEK (MP 67.1) BRIDGE EB
1307	INB6	INDEX BRIDGE
1308 - 1361	BF1 - BF54	UNNAMED CREEK (MP 67.1) EASTBOUND BRIDGE PLANS

PLAN REF NO

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I-90
CABIN CREEK I/C TO W EASTON I/C
PHASE 3 - ADD LANES/WILDLIFE BRIDGES

INDEX

Plot 35

PLAN REF NO
IN35

SHEET 1528 OF 1783 SHEETS

INDEX

SHEET NO.	PLAN REFERENCE NO.	TITLE
		VOLUME 8
1362 - 1365	IN29 - IN32	INDEX
1366	CT8	CERTIFICATION SHEET
		UNNAMED CREEK (MP 67.1) BRIDGE WB
1367	INB7	INDEX BRIDGE
1368 - 1417	BG1 - BG50	UNNAMED CREEK (MP 67.1) WESTBOUND BRIDGE PLANS
		WILDLIFE OVERCROSSING STRUCTURE EB & WB AND WALLS
1418	INB8	INDEX BRIDGE
1419 - 1442	WA1 - WA24	WILDLIFE OVERCROSSING STRUCTURE EB & WB PLANS
1443 - 1454	WO1 - WO12	WILDLIFE OVERCROSSING WALL PLANS
1455 - 1458	WOC1 - WOC4	WILDLIFE OVERCROSSING MISC. DETAILS
1459 - 1464	WOC5 - WOC10	ARCHITECTURAL DETAILS
		WILDLIFE UNDERCROSSING (MP 68.8) BRIDGE EB
1465	INB9	INDEX BRIDGE
1466 - 1525	BH1 - BH60	WILDLIFE UNDERCROSSING (MP 68.8) EASTBOUND BRIDGE PLANS
		VOLUME 9
1526 - 1529	IN33 - IN36	INDEX
1530	CT9	CERTIFICATION SHEET
		WILDLIFE UNDERCROSSING (MP 68.8) BRIDGE WB
1531	INB10	INDEX BRIDGE
1532 - 1588	BJ1 - BJ57	WILDLIFE UNDERCROSSING (MP 68.8) WESTBOUND BRIDGE PLANS
		SPARKS ROAD BRIDGE EB
1589	INB11	INDEX BRIDGE
1590 - 1620	BK1 - BK31	SPARKS ROAD EASTBOUND BRIDGE PLANS
		SPARKS ROAD BRIDGE WB
1621	INB12	INDEX BRIDGE
1622 - 1652	BL1 - BL31	SPARKS ROAD WESTBOUND BRIDGE PLANS
		VOLUME 10
1653 - 1656	IN37 - IN40	INDEX
1657	CT10	CERTIFICATION SHEET

INDEX (CONTINUED)

SHEET NO.	PLAN REFERENCE NO.	TITLE
		KACHESS RIVER BRIDGE EB
1658	INB13	INDEX BRIDGE
1659 - 1696	BM1 - BM38	KACHESS RIVER EASTBOUND BRIDGE PLANS
		KACHESS RIVER BRIDGE WB
1697	BN1	KACHESS RIVER WESTBOUND BRIDGE PLANS
		SIGN STRUCTURES
1698	SB1	CANTILEVER SIGN STRUCTURE GENERAL NOTES
1699 - 1703	SB2 - SB6	CANTILEVER NO.1 - NO.5 LAYOUT
1704 - 1705	SB7 - SB8	CANTILEVER 1, 2, 3, 4, 5 STRUCTURAL DETAILS
1706 - 1707	SB9 - SB10	CANTILEVER 1, 2, 3, 4, 5 FOUNDATION DETAILS
1708 - 1711	SB11 - SB14	CANTILEVER NO.6 - NO.9 LAYOUT
1712 - 1714	SB15 - SB17	CANTILEVER 6, 7, 8, 9 STRUCTURAL DETAILS
1715	SB18	CANTILEVER 5, 6, 7, 8, CAMERA SUPPORT POST DETAILS
1716 - 1717	SB19 - SB20	CANTILEVER 6, 7, 8, 9 FOUNDATION DETAILS
1718 - 1719	SB21 - SB22	VARIABLE SPEED LIMIT SIGNS - MOUNTING DETAILS
1720 - 1721	SB23 - SB24	ELECTRICAL CABINET MOUNTING DETAILS
1722	SSH1	CAMERA POLE SHAFT CAP WITH SNOW SHIELD
1723	SSH2	SIGN STRUCTURE SHAFT CAP WITH SNOW SHIELD
1724	SSH3	SNOW SHIELD DETAILS
1725 - 1726	FS1 - FS2	FOREST SERVICE SIGN PLAN
1727	FS3	FOREST SERVICE SIGN DETAILS
		ROCK SLOPE STABILIZATION
1728 - 1732	RK1 - RK5	ROCK SLOPE STABILIZATION PLAN
1733 - 1737	RKP1 - RKP5	ROCK SLOPE PROFILE
1738 - 1739	RKT1 - RKT2	ROCK SLOPE STABILIZATION TYPICAL
1740 - 1758	RKD1 - RKD19	ROCK SLOPE DETAILS
1759 - 1761	CLA1 - CLA3	CLASS A SIGNING PLAN
1762 - 1779	TCP1 - TCP18	TRAFFIC CONTROL PLAN
1780 - 1781	D1 - D2	BIKE DETOUR PLAN
1782 - 1783	D3 - D4	DETOUR PLAN

PLAN REF NO
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SHEET ## OF ## SHEETS

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I-90
CABIN CREEK I/C TO W EASTON I/C
PHASE 3 - ADD LANES/WILDLIFE BRIDGES

INDEX

Plot 36
PLAN REF NO IN36
SHEET 1529 OF 1783 SHEETS

PROJECT LICENSED PROFESSIONAL CERTIFICATES

Bijan Khaleghi Feb 16, 2022 AS A LICENSED PROFESSIONAL IN DIRECT RESPONSIBLE CHARGE OF DEVELOPING THIS CONTRACT, I CERTIFY THAT ALL PLANS THAT CONTAIN MY STAMP HAVE BEEN DEVELOPED UNDER MY SUPERVISION.	Anthony Mizumori Feb 16, 2022 AS A LICENSED PROFESSIONAL IN DIRECT RESPONSIBLE CHARGE OF DEVELOPING THIS CONTRACT, I CERTIFY THAT ALL PLANS THAT CONTAIN MY STAMP HAVE BEEN DEVELOPED UNDER MY SUPERVISION.	Brian Aldrich Feb 16, 2022 AS A LICENSED PROFESSIONAL IN DIRECT RESPONSIBLE CHARGE OF DEVELOPING THIS CONTRACT, I CERTIFY THAT ALL PLANS THAT CONTAIN MY STAMP HAVE BEEN DEVELOPED UNDER MY SUPERVISION.	rochonm@wsdot.wa.gov Feb 16, 2022 AS A LICENSED PROFESSIONAL IN DIRECT RESPONSIBLE CHARGE OF DEVELOPING THIS CONTRACT, I CERTIFY THAT ALL PLANS THAT CONTAIN MY STAMP HAVE BEEN DEVELOPED UNDER MY SUPERVISION.
Richard Zeldenrust Feb 16, 2022 AS A LICENSED PROFESSIONAL IN DIRECT RESPONSIBLE CHARGE OF DEVELOPING THIS CONTRACT, I CERTIFY THAT ALL PLANS THAT CONTAIN MY STAMP HAVE BEEN DEVELOPED UNDER MY SUPERVISION.	AS A LICENSED PROFESSIONAL IN DIRECT RESPONSIBLE CHARGE OF DEVELOPING THIS CONTRACT, I CERTIFY THAT ALL PLANS THAT CONTAIN MY STAMP HAVE BEEN DEVELOPED UNDER MY SUPERVISION.	AS A LICENSED PROFESSIONAL IN DIRECT RESPONSIBLE CHARGE OF DEVELOPING THIS CONTRACT, I CERTIFY THAT ALL PLANS THAT CONTAIN MY STAMP HAVE BEEN DEVELOPED UNDER MY SUPERVISION.	AS A LICENSED PROFESSIONAL IN DIRECT RESPONSIBLE CHARGE OF DEVELOPING THIS CONTRACT, I CERTIFY THAT ALL PLANS THAT CONTAIN MY STAMP HAVE BEEN DEVELOPED UNDER MY SUPERVISION.
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NOTES:

THIS PLAN SET WAS DEVELOPED ELECTRONICALLY UNDER THE DIRECT SUPERVISION OF THE LICENSED PROFESSIONALS THAT HAVE AFFIXED THEIR SIGNATURE TO THIS PAGE.

THIS SHEET SERVES AS THE CERTIFICATION BY THE ABOVE LICENSED PROFESSIONALS OF ALL SHEETS IN THIS PLAN SET WHERE THEIR STAMPS AND SIGNATURES APPEAR.

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I-90
CABIN CREEK I/C TO W EASTON I/C
PHASE 3 - ADD LANES/WILDLIFE BRIDGES

CERTIFICATION SHEET

Plot 9

PLAN REF NO CT9

SHEET 1530 OF 1783 SHEETS

INDEX

SHEET NO.	PLAN REFERENCE NO.	TITLE
		WILDLIFE UNDERCROSSING (MP 68.8) BRIDGE WB
1531	INB10	INDEX BRIDGE
1532	BJ1	LAYOUT
1533	BJ2	GENERAL NOTES AND GEOMETRIC DATA
1534	BJ3	SUPERSTRUCTURE CONSTRUCTION SEQUENCE
1535	BJ4	FOUNDATION LAYOUT
1536	BJ5	PIER 1 SHAFT DETAILS
1537	BJ6	PIER 2 SHAFT DETAILS
1538	BJ7	PIER 3 SHAFT DETAILS
1539 - 1540	BJ8 - BJ9	PIER 1 COLUMN DETAILS
1541 - 1542	BJ10 - BJ11	PIER 2 COLUMN DETAILS
1543 - 1544	BJ12 - BJ13	PIER 3 COLUMN DETAILS
1545	BJ14	PIER 1 PLAN
1546	BJ15	PIER 1 ELEVATION
1547 - 1550	BJ16 - BJ19	PIER 1 CROSSBEAM DETAILS
1551 - 1552	BJ20 - BJ21	PIER 1 CURTAIN WALL DETAILS
1553 - 1556	BJ22 - BJ25	PIER 2 CROSSBEAM DETAILS
1557	BJ26	PIER 3 PLAN
1558	BJ27	PIER 3 ELEVATION

INDEX (CONTINUED)

SHEET NO.	PLAN REFERENCE NO.	TITLE
1559 - 1562	BJ28 - BJ31	PIER 3 CROSSBEAM DETAILS
1563 - 1564	BJ32 - BJ33	PIER 3 CURTAIN WALL DETAILS
1565	BJ34	BEARING DETAILS
1566	BJ35	FRAMING PLAN
1567	BJ36	TYPICAL SECTION
1568 - 1572	BJ37 - BJ41	WF74G GIRDER DETAILS
1573	BJ42	END DIAPHRAGM DETAILS
1574	BJ43	INTERMEDIATE DIPHRAGM DETAILS
1575 - 1576	BJ44 - BJ45	BRIDGE DECK REINFORCEMENT PLAN BOTTOM MAT DETAILS
1577 - 1578	BJ46 - BJ47	BRIDGE DECK REINFORCEMENT PLAN TOP MAT DETAILS
1579 - 1580	BJ48 - BJ49	BRIDGE DECK REINFORCEMENT SECTION DETAILS
1581 - 1583	BJ50 - BJ52	TRAFFIC BARRIER DETAILS
1584 - 1586	BJ53 - BJ55	BRIDGE APPROACH SLAB DETAILS
1587	BJ56	ARCHITECTURAL TREATMENT
1588	BJ57	BAR LIST

PLAN REF NO
¢¢###
SHEET ## OF ## SHEETS

NOTE: ALL SHEET REFERENCES, FIRST NOS. OF STRUCTURE CODE DESIGNATIONS AND MATCH LINE SHEET REFERENCES, ETC., THROUGHOUT THE PLANS, REFER TO THE ENTRY IN THE PLAN

FILE NAME	K:\452201\090\06736_Phase 3\Design_CAD_Sheets\010-Index\XL5479_PS_INB.dgn				REGION NO.	STATE	FED.AID PROJ.NO.
TIME	7:03:28 AM				10	WASH	
DATE	2/16/2022				JOB NUMBER		
PLOTTED BY	kingk				197007		
DESIGNED BY	KING/SCHILPEROORT				CONTRACT NO.		LOCATION NO.
ENTERED BY	K. KING						
CHECKED BY	K. KING						
PROJ. ENGR.	A. BYRD						
REGIONAL ADM.	T. TREPANIER	REVISION	DATE	BY			

DATE
P.E. STAMP BOX

DATE
P.E. STAMP BOX

Washington State Department of Transportation

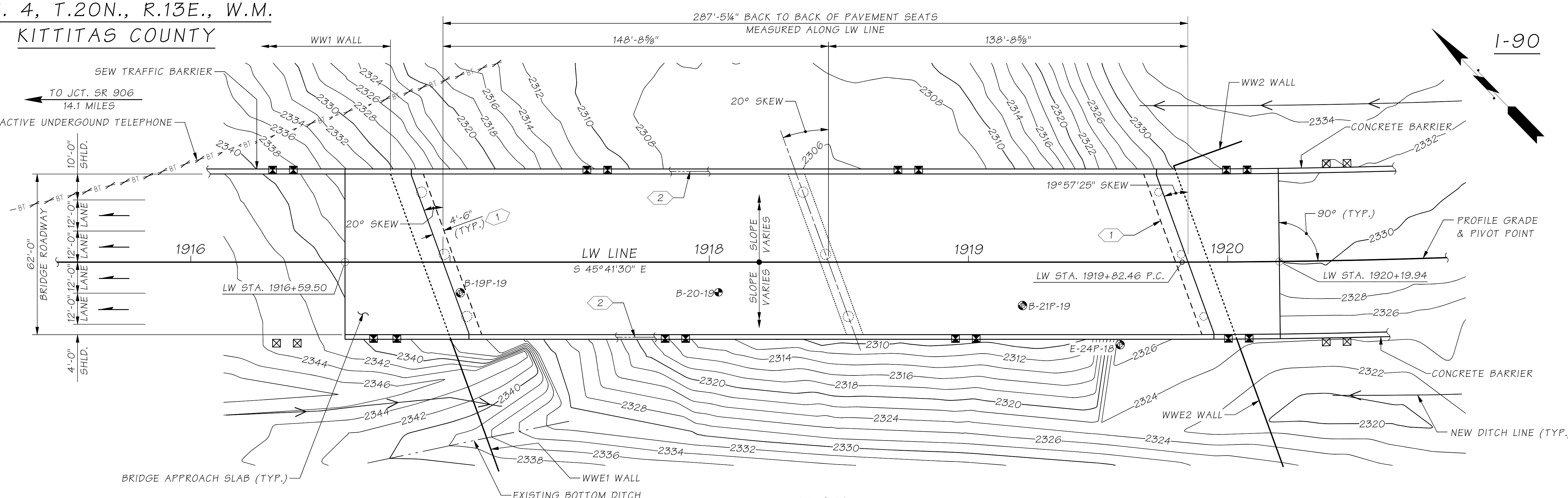
I-90
CABIN CREEK I/C TO W EASTON I/C
PHASE 3 - ADD LANES/WILDLIFE BRIDGES

INDEX BRIDGE

Plot 11
PLAN REF NO
INB10
SHEET 1531 OF 1783 SHEETS

SEC. 4, T.20N., R.13E., W.M.

KITTITAS COUNTY

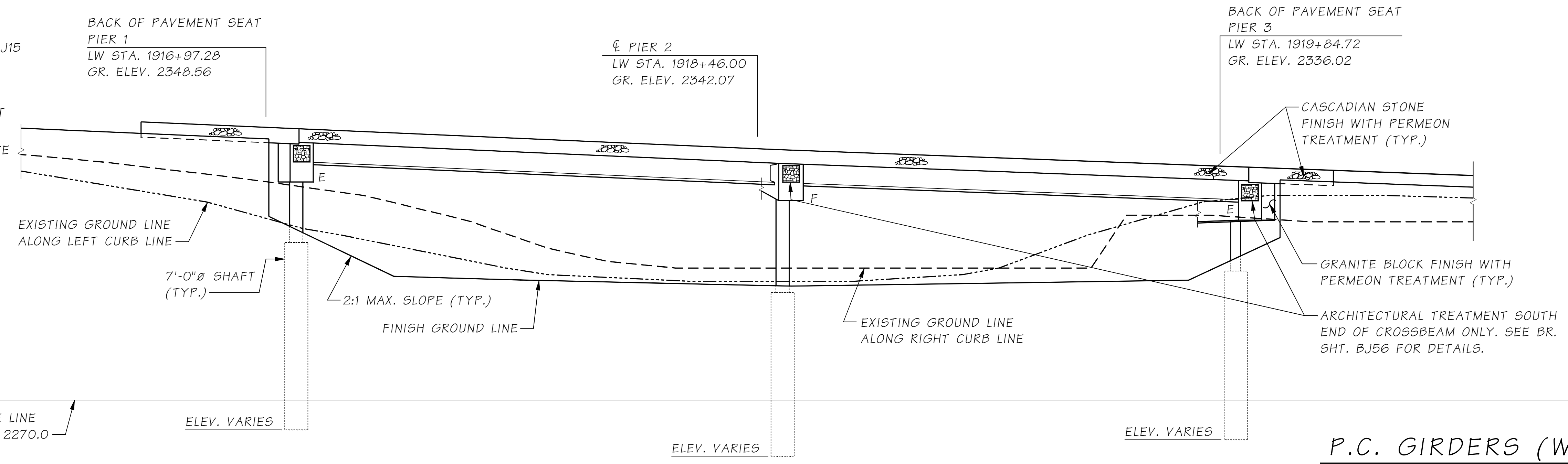


PLAN

BEARING OF PIERS IS N 24°18'30" E

LEGEND

- (B / BJ15) IDENTIFIES SECTION OR VIEW — TAKEN OR SHOWN ON BRIDGE SHEET BJ15
- (1 / —) IDENTIFIES DETAIL — TAKEN OR SHOWN ON THE SAME SHEET
- (99) FLAGNOTE: IDENTIFIES NOTE REFERENCE ON THE SAME SHEET
- SOIL BORING LOCATIONS
  - F = FIXED
  - E = EXPANSION BEARING
- PIEZOMETER LOCATIONS
- JUNCTION BOX NEMA 4X S.S. (TYP.)
- JUNCTION BOX (TYP.)



ELEVATION

GRADE ELEVATIONS SHOWN ARE FINISH GRADES AT TOP OF BRIDGE DECK ON LW LINE AND ARE EQUAL TO PROFILE GRADE.

NOTES:

1. FRONT FACE OF CROSSBEAM
2. 2 ~ 2"ø CONDUIT PIPES IN TRAFFIC BARRIER FOR FULL LENGTH OF BARRIER

DATUM

NAVD 88

P.C. GIRDERS (WF74G)

LOADING: HL-93

SEISMIC OPERATIONAL CLASSIFICATION: NORMAL

Bridge Design Engr.	Khaleghi, B	
Supervisor	Aldrich, BS	
Designed By	Mizumori, A	10/19
Checked By	Howlett, K	12/21
Detailed By	DM, WB, MW	10/19
Bridge Projects Engr.	Rosa, M	
Prelim. Plan By	Wei, J	07/19
Architect/Specialist	Rochon, M	10/19

M:\X-Team\I-90_WILDLIFE U-XING WB BRIDGE_SCR\window files\LAYOUT.wnd

DATE	REVISION	BY	APP'D

REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
10	WASH.			

JOB NUMBER 19Y007

CONTRACT NO.

P.E. STAMP BOX — SEE SHEET CT9 — DATE:

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX — BIJAN KHALEGHI, STATE OF WASHINGTON, 27695, STRUCTURAL ENGINEER, PROFESSIONAL ENGINEER — SEE SHEET CT9 — DATE:

Washington State Department of Transportation

I-90
CABIN CREEK I/C TO W EASTON I/C
PHASE 3 - ADD LANES/WILDLIFE BRIDGES
I-90 WILDLIFE U-XING WB BR. NO. 90/116.7N

LAYOUT

BRIDGE SHEET NO. BJ1

SHEET 1532 OF 1783 SHEETS

SR I-90 FILE NO. ____ SHEET BJ1

Mon Jan 31 16:03:10 2022

CURVE DATA					
P.I. STATION	Δ	RADIUS	TANGENT	LENGTH	BK. TANGENT BRG.
LW 1929+57.94	36°01'30" LT.	3000.00'	975.48'	1886.26'	S 45°41'30" E

GENERAL NOTES

1. ALL MATERIAL AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION DATED 2022.

2. THIS STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH THE REQUIREMENTS OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS 9TH EDITION 2020. DEAD LOAD INCLUDES ADDITIONAL FUTURE WEARING SURFACE OF 35 POUNDS PER SQUARE FOOT. THE BRIDGE TRAFFIC BARRIERS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE REQUIREMENTS FOR TEST LEVEL 5 (TL-5) RAILINGS.

3. THE SEISMIC DESIGN OF THIS STRUCTURE HAS BEEN COMPLETED IN ACCORDANCE WITH THE REQUIREMENTS OF THE AASHTO GUIDE SPECIFICATIONS FOR LRFD SEISMIC BRIDGE DESIGN 2ND EDITION 2011 WITH INTERIM THROUGH 2015, USING SEISMIC DESIGN CATEGORY C, SITE CLASS D, A PEAK GROUND ACCELERATION OF 0.23, AND 0.2 SECOND AND 1.0 SECOND SPECTRAL ACCELERATION OF 0.512 AND 0.153, RESPECTIVELY, ON SITE CLASS B.

4. THE CONCRETE IN BRIDGE DECKS SHALL BE CLASS 4000DSNF. THE CONCRETE IN BRIDGE APPROACH SLABS SHALL BE CLASS 4000A. THE CONCRETE IN SHAFTS SHALL BE CLASS 5000P. ALL OTHER CAST-IN-PLACE CONCRETE SHALL BE CLASS 4000.

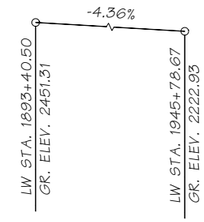
5. THE BACKFILL BEHIND THE ABUTMENTS MAY BE PLACED PRIOR TO PLACEMENT OF THE SUPERSTRUCTURE, IN ACCORDANCE WITH SECTION 2-09.3(1)E.

6. UNLESS OTHERWISE SHOWN IN THE PLANS, CONCRETE COVER MEASURED FROM THE FACE OF CONCRETE TO THE FACE OF ANY REINFORCING STEEL SHALL BE 2½" AT THE TOP OF THE BRIDGE DECK, 1" AT THE BOTTOM OF THE BRIDGE DECK AND 2" AT ALL OTHER LOCATIONS.

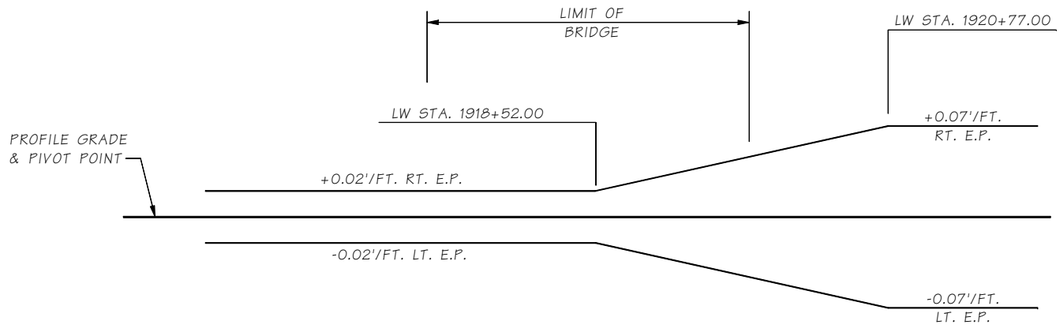
7. FALSEWORK SHALL BE CAREFULLY RELEASED TO PREVENT IMPACT OR UNDUE STRESS IN THE STRUCTURE.

8. CONDUITS, JUNCTION BOXES, AND UTILITIES ARE SHOWN FOR REFERENCE ONLY. THE CONTRACTOR SHALL COORDINATE THESE PLANS WITH THE ELECTRICAL, I.T.S. AND OTHER CIVIL PLANS.

9. SNOW ACCUMULATION ON COMPLETED BRIDGE DECKS THAT ARE CLOSED TO TRAFFIC SHALL NOT EXCEED 4'-0" DEPTH. ANY SNOW REMOVAL EQUIPMENT USED ON BRIDGE DECKS SHALL NOT EXCEED LEGAL LOAD LIMITS.



LW LINE PROFILE



LW LINE SUPERELEVATION DIAGRAM

SR I-90 FILE NO. ____ SHEET B32

Bridge Design Engr.	Khaleghi, B	M:\X-Team\I-90_WILDLIFE U-XING WB BRIDGE_SCR\window files\GEN NOTES.wnd				REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor	Aldrich, BS					10	WASH.			
Designed By	Mizumori, A 06/20					JOB NUMBER 19Y007				
Checked By	Howlett, K 12/21					CONTRACT NO.				
Detailed By	McCarthy, D 10/19									
Bridge Projects Engr.										
Prelim. Plan By										
Architect/Specialist		DATE	REVISION	BY	APP'D					

P.E. STAMP BOX: ANTHONY J. I. MIZUMORI, STATE OF WASHINGTON, 14357, PROFESSIONAL ENGINEER — SEE SHEET CT9 — DATE:

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX: BERLIN S. ALDRICH, STATE OF WASHINGTON, 37934, PROFESSIONAL ENGINEER — SEE SHEET CT9 — DATE:

Washington State Department of Transportation

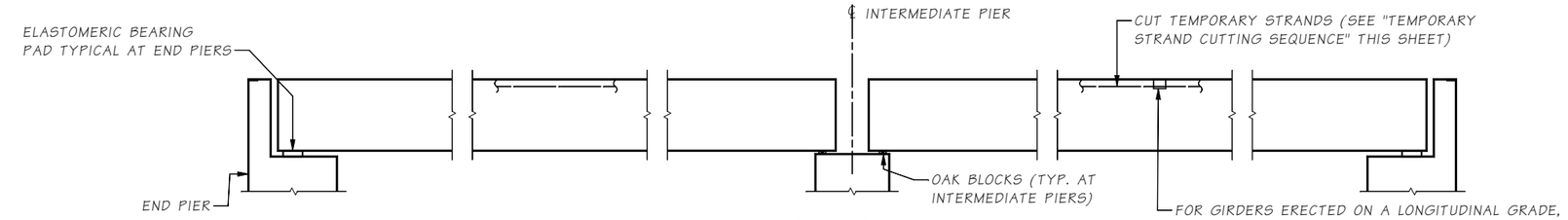
I-90
CABIN CREEK I/C TO W EASTON I/C
PHASE 3 - ADD LANES/WILDLIFE BRIDGES
I-90 WILDLIFE U-XING WB BR. NO. 90/116.7N

GENERAL NOTES AND GEOMETRIC DATA

BRIDGE SHEET NO. BJ2

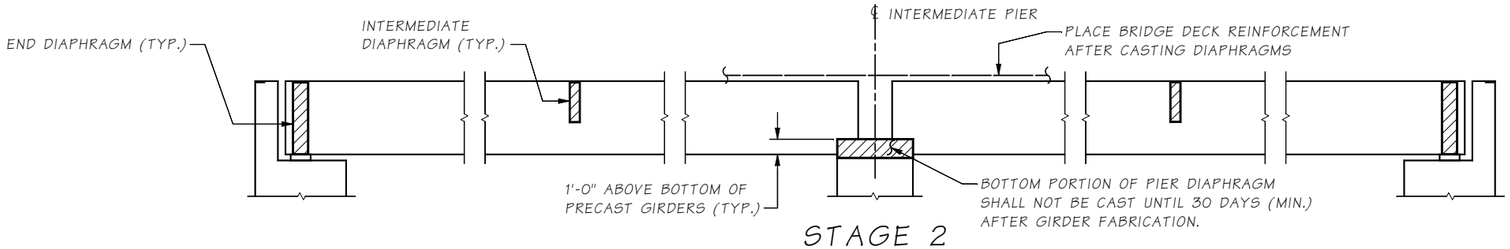
SHEET 1533 OF 1783 SHEETS

Mon Jan 31 16:03:15 2022



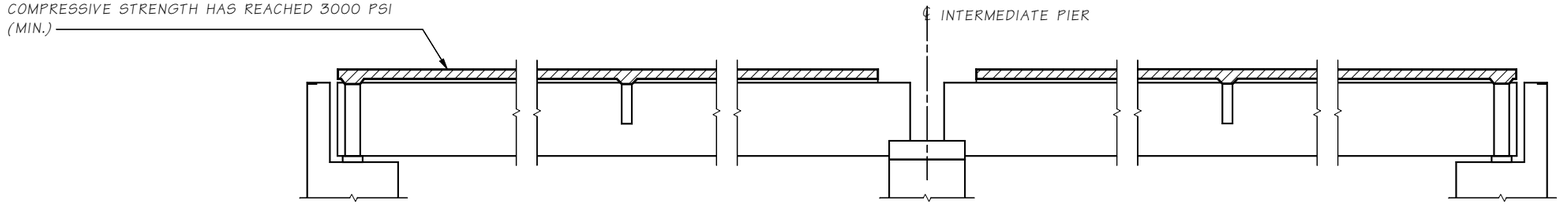
STAGE 1
SET GIRDERS IN PLACE

INSTALL TEMPORARY BRACING FOR ERECTION IN ACCORDANCE WITH STD. SPEC. SECTION 6-02.3(17)F4.

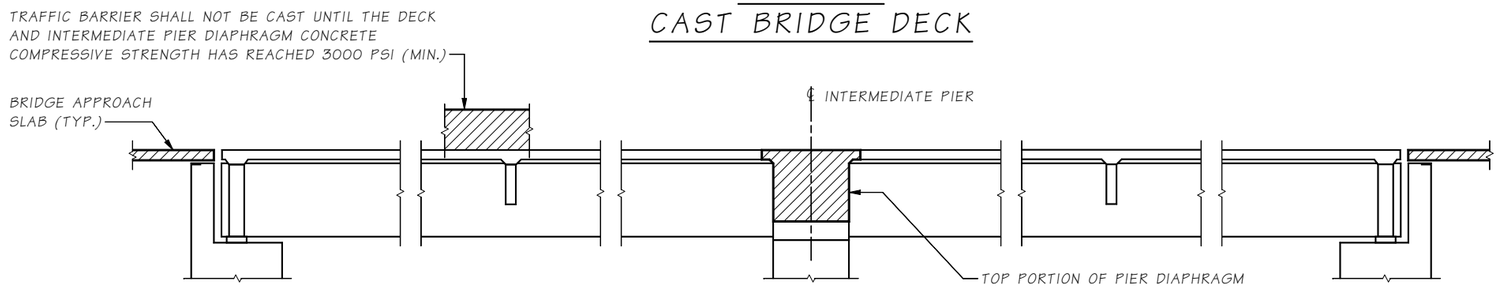


STAGE 2
CAST DIAPHRAGMS AND PLACE BRIDGE DECK REINFORCEMENT

INSTALL TEMPORARY BRACING FOR DIAPHRAGM AND DECK PLACEMENT IN ACCORDANCE WITH STD. SPEC. SECTION 6-02.3(17)F5.



STAGE 3
CAST BRIDGE DECK



STAGE 4
COMPLETE DIAPHRAGMS

TEMPORARY STRAND CUTTING SEQUENCE

1. ERECT AND BRACE GIRDERS.
2. JUST PRIOR TO CUTTING THE TEMPORARY STRANDS, REMOVE EXPANDED POLYSTYRENE IN BLOCKOUTS IN TOP FLANGE OF GIRDERS. ONCE THE EXPANDED POLYSTYRENE HAS BEEN REMOVED FROM THE STRAND DETENSIONING BLOCKOUT, PREVENT MOISTURE FROM ENTERING THE BLOCKOUT UNTIL THE TEMPORARY TOP STRAND IS CUT AND THE BLOCKOUT FILLED WITH GROUT.
3. CUT STRANDS IN BLOCKOUTS. STRANDS MAY BE CUT BY USING A CUTTING TORCH AND MOVING THE FLAME BACK AND FORTH OVER THE LENGTH OF EXPOSED STRAND TO LET INDIVIDUAL WIRES BREAK ONE AT A TIME TO LESSEN THE SHOCK TO THE GIRDER. STRANDS SHALL BE RELEASED IN A SYMMETRICAL MANNER ABOUT THE GIRDER CENTERLINE STARTING WITH THOSE FURTHEST FROM THE CENTERLINE AND WORKING INWARDS. FOR POST-TENSIONED TEMPORARY TOP STRANDS, ACTIVELY RESTRAIN THE STRAND CHUCKS AT THE GIRDER ENDS DURING CUTTING.
4. WITHIN 24 HOURS OF CUTTING THE TEMPORARY STRANDS, FILL THE BLOCKOUTS WITH A GROUT CONFORMING TO STD. SPEC. 9-20.3(2). REMOVE ALL MOISTURE IN BLOCKOUTS PRIOR TO FILLING THEM WITH GROUT.

NOTE:

NO LIVE LOAD SHALL BE ALLOWED ON THE SPANS UNTIL THE COMPRESSIVE STRENGTH OF THE TOP PORTION OF THE PIER DIAPHRAGM HAS REACHED 3000 PSI (MIN.).

CONSTRUCTION SEQUENCE ~ SUPERSTRUCTURE

SR I-90 FILE NO. ____ SHEET BJ3

Bridge Design Engr.	Khaleghi, B	
Supervisor	Aldrich, BS	
Designed By	Mizumori, A	06/20
Checked By	Howlett, K	12/21
Detailed By	McCarthy, D	10/19
Bridge Projects Engr.		
Prelim. Plan By		
Architect/Specialist		

M:\X-Team\I-90_WILDLIFE U-XING WB BRIDGE_SCR\window files\CONST SEQUENCE.wnd

DATE	REVISION	BY	APP'D

REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
10	WASH.			
JOB NUMBER 19Y007				
CONTRACT NO.				

P.E. STAMP BOX — ANTHONY J. I. MIZUMORI — STATE OF WASHINGTON — 44257 — PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE:

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX — BRIAN S. ALDRICH — STATE OF WASHINGTON — 37834 — PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE:

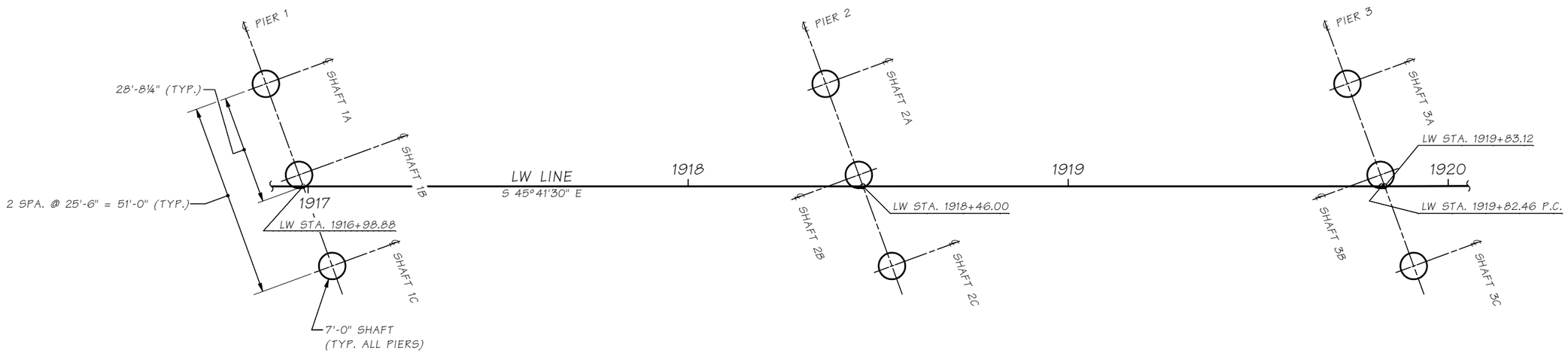
Washington State Department of Transportation

I-90
CABIN CREEK I/C TO W EASTON I/C
PHASE 3 - ADD LANES/WILDLIFE BRIDGES
I-90 WILDLIFE U-XING WB BR. NO. 90/116.7N

SUPERSTRUCTURE CONSTRUCTION SEQUENCE

BRIDGE SHEET NO. BJ3
SHEET 1534 OF 1783 SHEETS

Mon Jan 31 16:03:16 2022



FOUNDATION LAYOUT

BEARING OF PIERS IS N 24°18'30" E

SR I-90 FILE NO. ____ SHEET BJ4

Bridge Design Engr.	Khaleghi, B	M:\X-Team\I-90_WILDLIFE U-XING WB BRIDGE_SCR\window files\FOUNDATION PLAN.wnd				REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor	Aldrich, BS					10	WASH.			
Designed By	Mizumori, A 06/20					JOB NUMBER 19Y007				
Checked By	Howlett, K 12/21					CONTRACT NO.				
Detailed By	McCarthy, D 10/19									
Bridge Projects Engr.										
Prelim. Plan By										
Architect/Specialist		DATE	REVISION	BY	APP'D					

P.E. STAMP BOX
ANTHONY J. I. MIZUMORI
STATE OF WASHINGTON
44267
STRUCTURAL ENGINEER
PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE:

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX
BRIAN S. ALDRICH
STATE OF WASHINGTON
37834
STRUCTURAL ENGINEER
PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE:

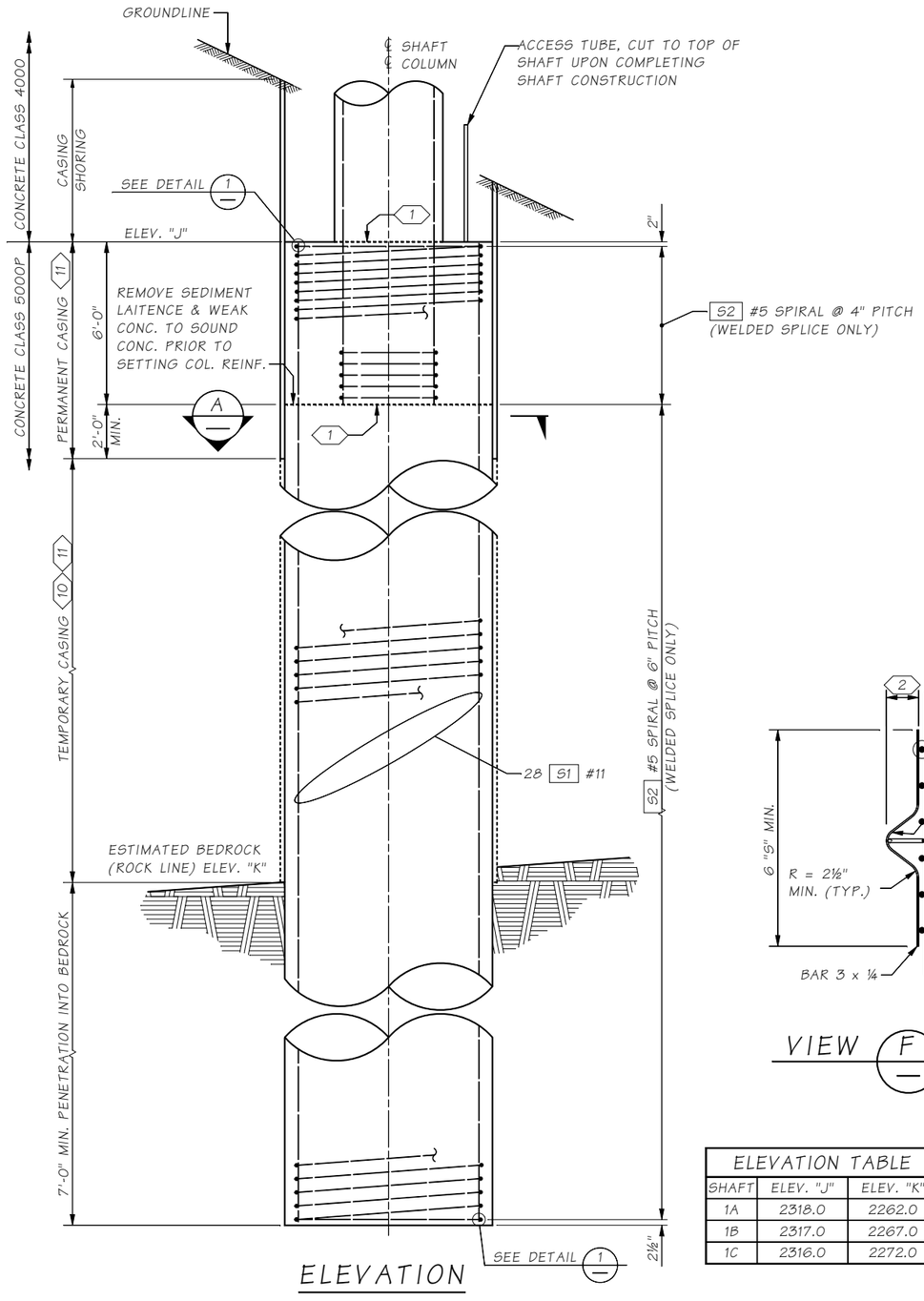
Washington State Department of Transportation

I-90
CABIN CREEK I/C TO W EASTON I/C
PHASE 3 - ADD LANES/WILDLIFE BRIDGES
I-90 WILDLIFE U-XING WB BR. NO. 90/116.7N

FOUNDATION LAYOUT

BRIDGE SHEET NO. BJ4
SHEET 1535 OF 1783 SHEETS

Mon Jan 31 16:03:17 2022



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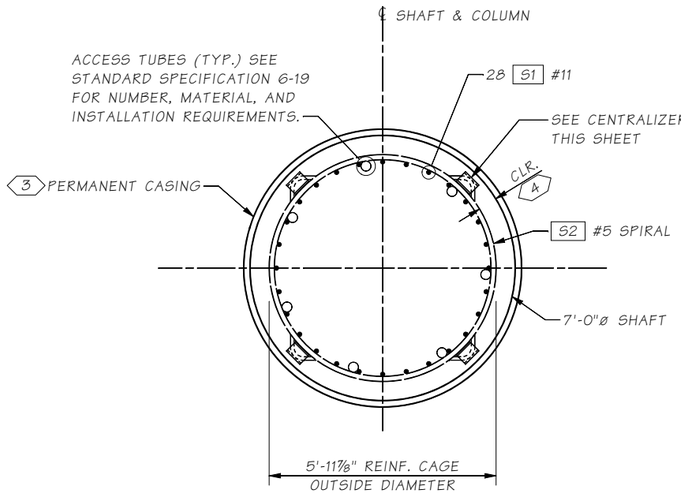

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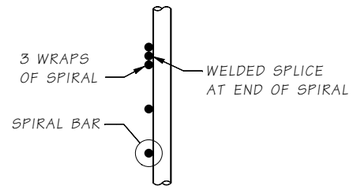
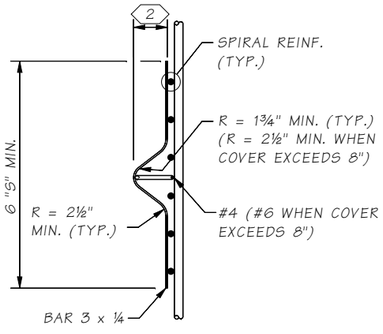


DETAIL 1
SPIRAL TERMINATION

SHAFT SPIRAL OPTIONS

DEFORMED BAR	WELD DIMENSIONS (IN.)		
	S	E	LENGTH (L)
#4	¼	⅛	4
#5	5/16	3/16	6
#6	⅜	3/16	6



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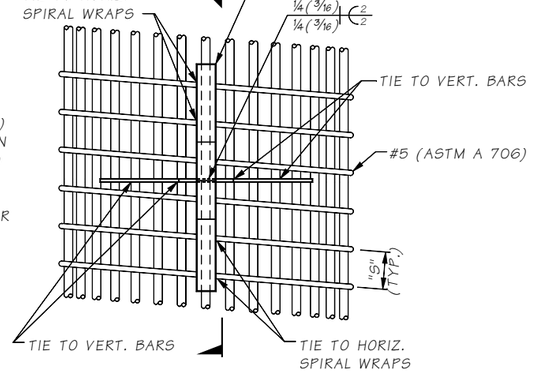
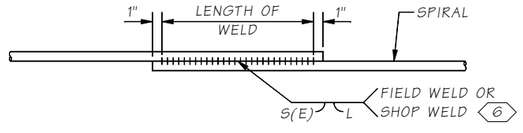


CENTRALIZER DETAIL
5 7 8 9

ELEVATION TABLE

SHAFT	ELEV. "J"	ELEV. "K"
1A	2318.0	2262.0
1B	2317.0	2267.0
1C	2316.0	2272.0



WELDED LAP SPLICE DETAIL

NOTES:

1. CONSTRUCTION JOINT WITH ROUGHENED SURFACE.
2. MINIMUM CONCRETE COVER MINUS ½".
3. SEE STD. SPEC. 6-19.3(3)b5 FOR PERMANENT SLIP CASING.
4. SEE STD. SPEC. 6-19.3(5)c FOR MINIMUM CONCRETE COVER.
5. SEE STD. SPEC. 6-19.3(5)b FOR SPACING REQUIREMENTS.
6. WELDING SHALL MEET THE REQUIREMENTS OF STD. SPEC. 6-02.3(24)E FOR WELD DIMENSIONS, SEE SHAFT SPIRAL OPTIONS TABLE THIS SHEET
7. CENTRALIZERS SHALL BE EPOXY COATED OR PAINTED WITH PAINT CONFORMING TO STANDARD SPECIFICATION 9-08.1(2)c OR 9-08.1(2)f AFTER FABRICATION.
8. EACH LEG SHALL BE TIED TO TWO (2) VERTICAL BAR AND TWO (2) SPIRAL WRAPS.
9. CAGECASTER® REBAR CAGE SPACERS BY FOUNDATION TECHNOLOGIES MAY BE USED IN LIEU OF DETAIL SHOWN. SPACING REQUIREMENTS SHALL BE PER MANUFACTURER'S RECOMMENDATIONS. EACH LEG SHALL BE TIED TO A MINIMUM OF TWO (2) SIPRAL WRAPS.
10. EXCAVATION IN ADVANCE OF THE CASING TIP SHALL NOT EXCEED 2 FEET.
11. THE INSIDE DIAMETER OF PERMANENT CASING AND TEMPORARY CASING ABOVE THE ROCK LINE MAY EXCEED THE SPECIFIED DIAMETER OF THE SHAFT BY UP TO 1 FOOT.

SR I-90 FILE NO. SHEET BJ5

Bridge Design Engr.	Khaleghi, B	M:\X-Team\I-90_WILDLIFE U-XING WB BRIDGE_SCR\window files\PIER1SHAFT.wnd					
Supervisor	Aldrich, BS						
Designed By	Mizumori, A 06/20						
Checked By	Howlett, K 12/21						
Detailed By	Bontemps, W 09/20						
Bridge Projects Engr.							
Prelim. Plan By							
Architect/Specialist		DATE	REVISION	BY	APP'D		

REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
10	WASH.			
JOB NUMBER 19Y007				
CONTRACT NO.				

P.E. STAMP BOX
ANTHONY J. MIZUMORI — STATE OF WASHINGTON — 44057 — PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE:

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX
BERLIN S. ALDRICH — STATE OF WASHINGTON — 37834 — PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE:

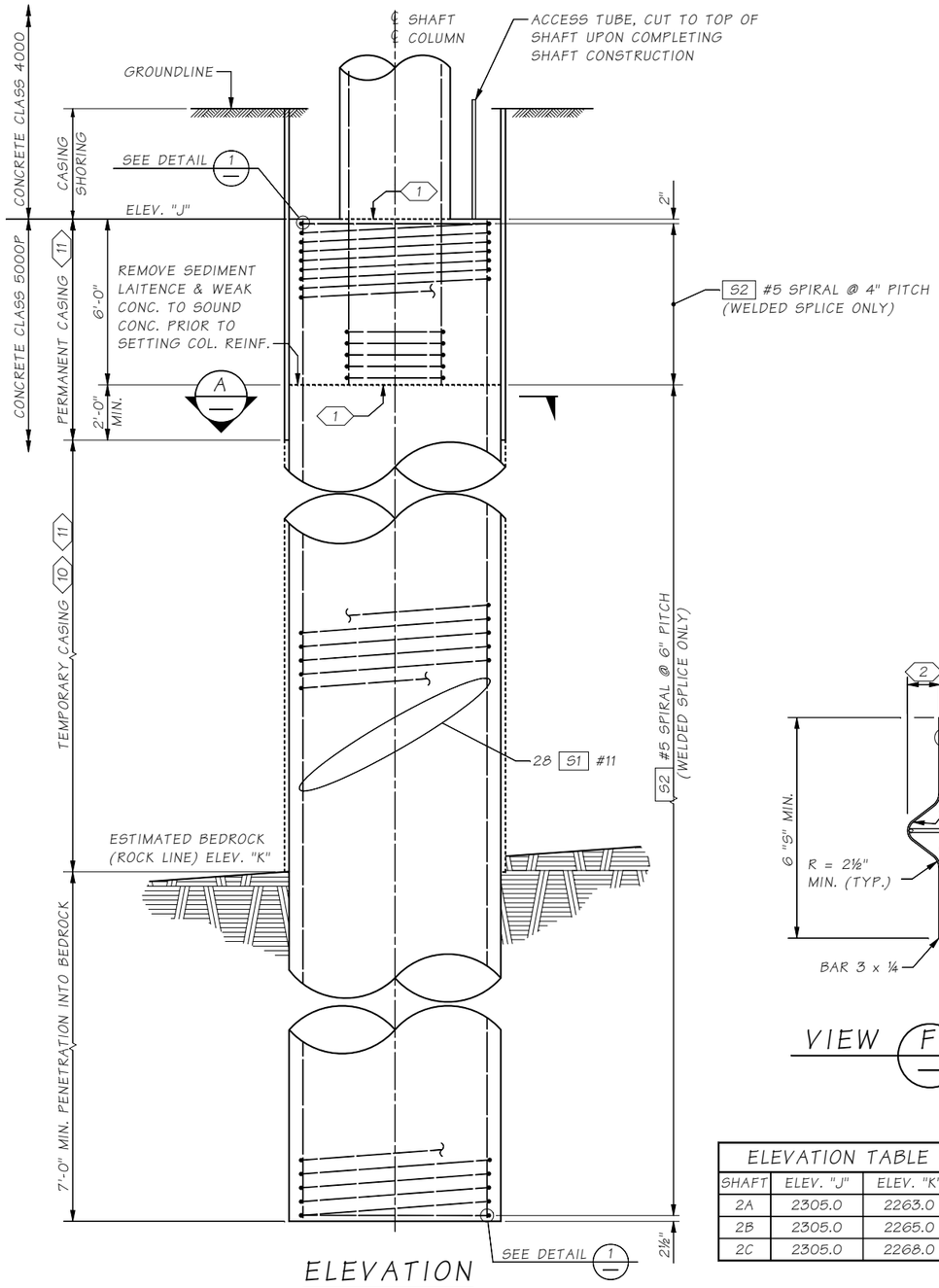
Washington State Department of Transportation

I-90
CABIN CREEK I/C TO W EASTON I/C
PHASE 3 - ADD LANES/WILDLIFE BRIDGES
I-90 WILDLIFE U-XING WB BR. NO. 90/116.7N

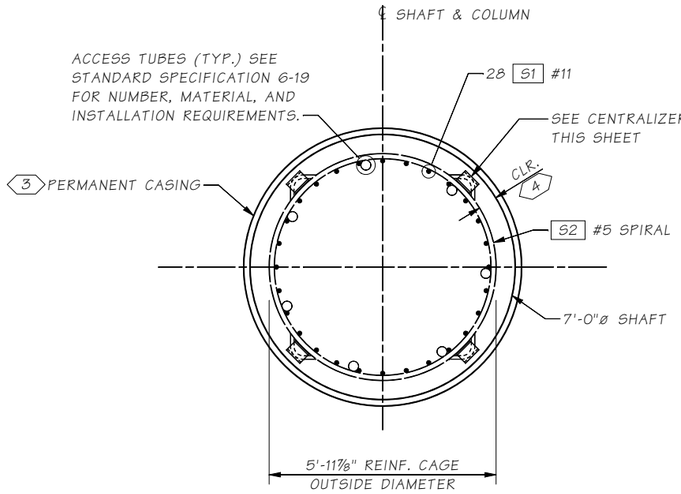
PIER 1 SHAFT DETAILS

BRIDGE SHEET NO. BJ5
SHEET 1536 OF 1783 SHEETS

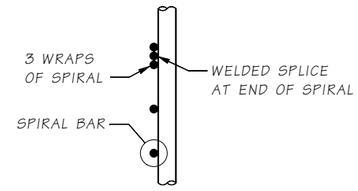
Mon Jan 31 16:05:18 2022



ELEVATION



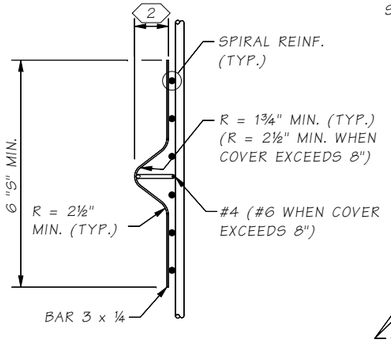
SECTION A



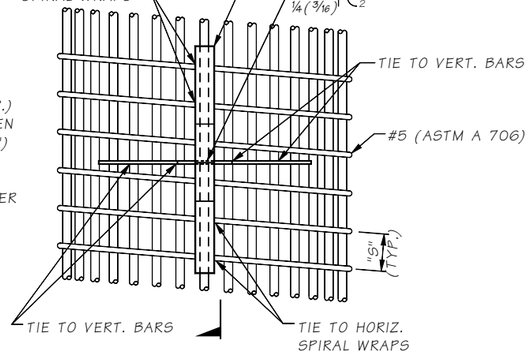
DETAIL 1
SPIRAL TERMINATION

SHAFT SPIRAL OPTIONS

DEFORMED BAR	WELD DIMENSIONS (IN.)		
	S	E	LENGTH (L)
#4	¼	⅛	4
#5	5/16	3/16	6
#6	⅜	3/16	6

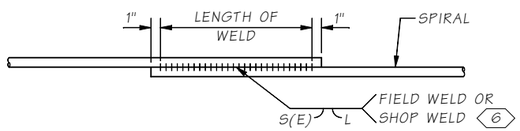


VIEW F



CENTRALIZER DETAIL

5 7 8 9



WELDED LAP SPLICE DETAIL

ELEVATION TABLE

SHAFT	ELEV. "J"	ELEV. "K"
2A	2305.0	2263.0
2B	2305.0	2265.0
2C	2305.0	2268.0

NOTES:

1. CONSTRUCTION JOINT WITH ROUGHENED SURFACE.
2. MINIMUM CONCRETE COVER MINUS ½".
3. SEE STD. SPEC. 6-19.3(3)b5 FOR PERMANENT SLIP CASING.
4. SEE STD. SPEC. 6-19.3(5)c FOR MINIMUM CONCRETE COVER.
5. SEE STD. SPEC. 6-19.3(5)b FOR SPACING REQUIREMENTS.
6. WELDING SHALL MEET THE REQUIREMENTS OF STD. SPEC. 6-02.3(24)E FOR WELD DIMENSIONS, SEE SHAFT SPIRAL OPTIONS TABLE THIS SHEET
7. CENTRALIZERS SHALL BE EPOXY COATED OR PAINTED WITH PAINT CONFORMING TO STANDARD SPECIFICATION 9-08.1(2)c OR 9-08.1(2)f AFTER FABRICATION.
8. EACH LEG SHALL BE TIED TO TWO (2) VERTICAL BAR AND TWO (2) SPIRAL WRAPS.
9. CAGECASTER® REBAR CAGE SPACERS BY FOUNDATION TECHNOLOGIES MAY BE USED IN LIEU OF DETAIL SHOWN. SPACING REQUIREMENTS SHALL BE PER MANUFACTURER'S RECOMMENDATIONS. EACH LEG SHALL BE TIED TO A MINIMUM OF TWO (2) SIPRAL WRAPS.
10. EXCAVATION IN ADVANCE OF THE CASING TIP SHALL NOT EXCEED 2 FEET.
11. THE INSIDE DIAMETER OF PERMANENT CASING AND TEMPORARY CASING ABOVE THE ROCK LINE MAY EXCEED THE SPECIFIED DIAMETER OF THE SHAFT BY UP TO 1 FOOT.

SR I-90 FILE NO. SHEET BJ6

Bridge Design Engr.	Khaleghi, B	M:\X-Team\I-90_WILDLIFE U-XING WB BRIDGE_SCR\window files\PIER2SHAFT.wnd	
Supervisor	Aldrich, BS		
Designed By	Mizumori, A 06/20		
Checked By	Howlett, K 12/21		
Detailed By	Bontemps, W 09/20		
Bridge Projects Engr.			
Prelim. Plan By			
Architect/Specialist		DATE REVISION BY APP'D	

REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
10	WASH.			
JOB NUMBER 19Y007				
CONTRACT NO.				

P.E. STAMP BOX — ANTHONY J. I. MIZUMORI — STATE OF WASHINGTON — 44307 — PROFESSIONAL ENGINEER — STRUCTURAL ENGINEER
SEE SHEET CT9
DATE:

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX — BRIAN S. ALDRICH — STATE OF WASHINGTON — 37834 — PROFESSIONAL ENGINEER — STRUCTURAL ENGINEER
SEE SHEET CT9
DATE:

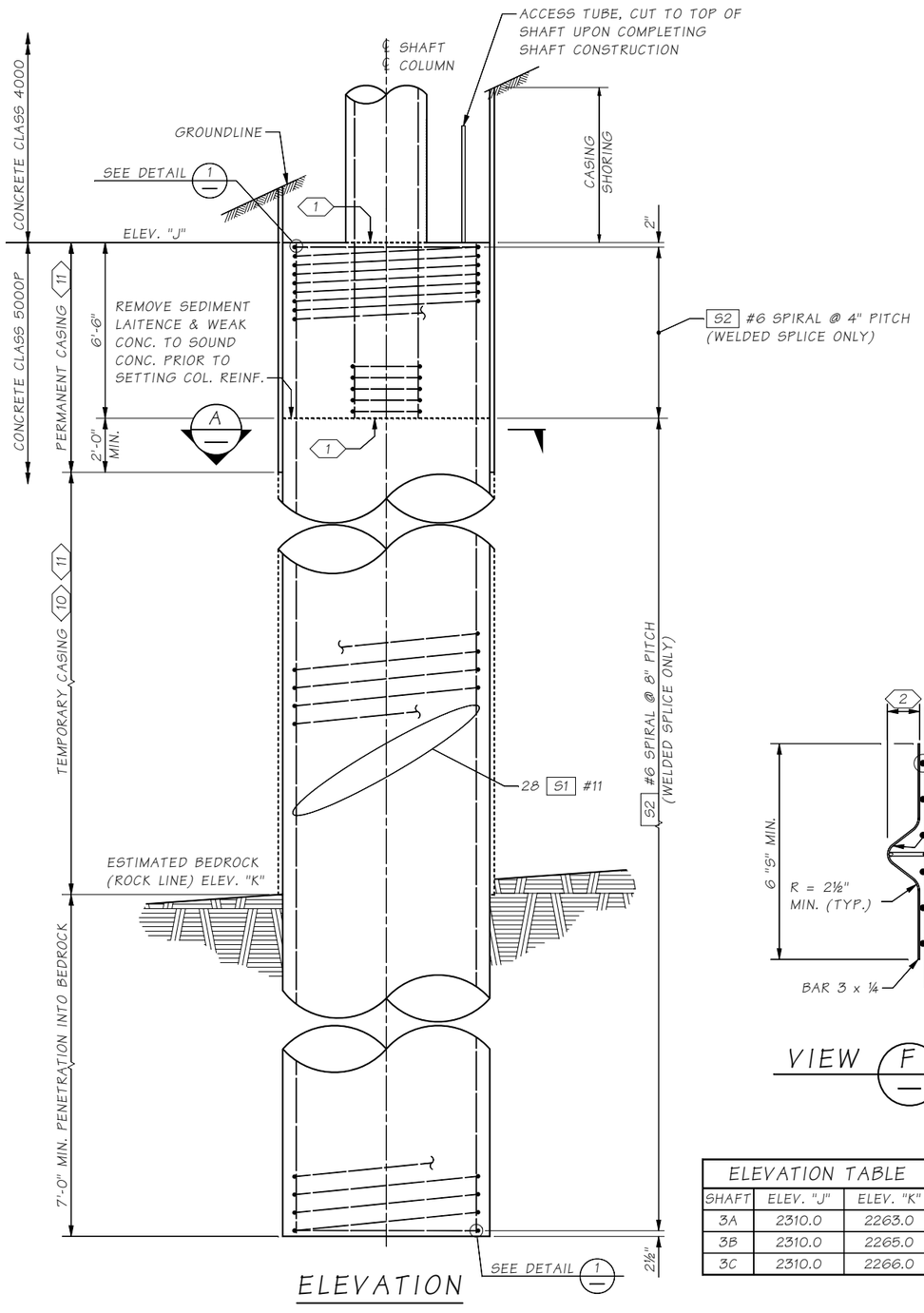
Washington State Department of Transportation

I-90
CABIN CREEK I/C TO W EASTON I/C
PHASE 3 - ADD LANES/WILDLIFE BRIDGES
I-90 WILDLIFE U-XING WB BR. NO. 90/116.7N

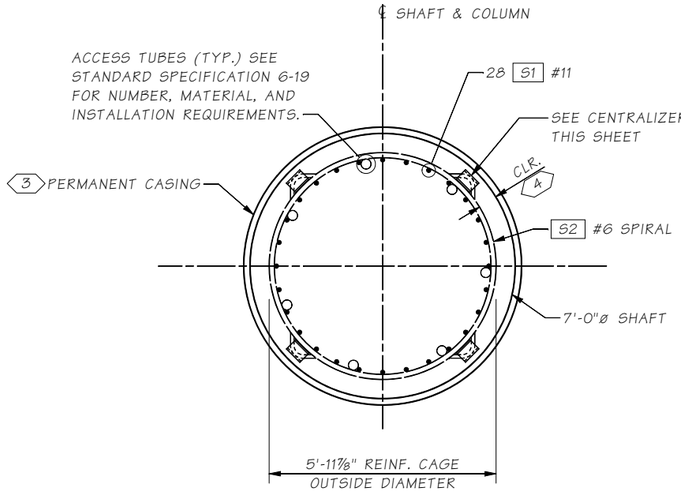
PIER 2 SHAFT DETAILS

BRIDGE SHEET NO. BJ6
SHEET 1537 OF 1783 SHEETS

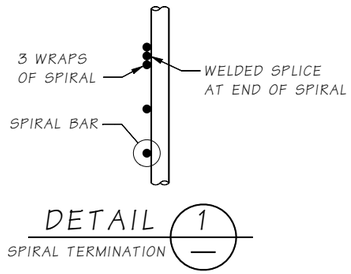
Mon Jan 31 16:03:20 2022



ELEVATION



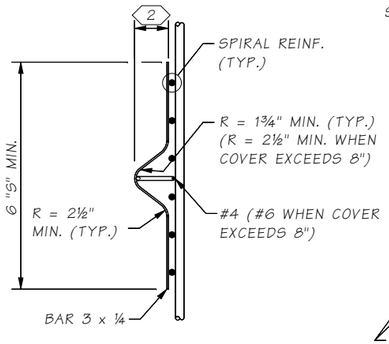
SECTION A



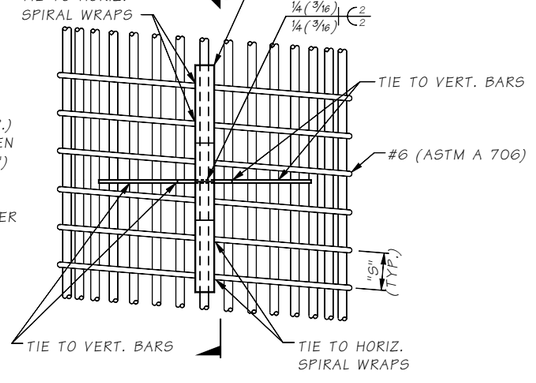
DETAIL 1
SPIRAL TERMINATION

SHAFT SPIRAL OPTIONS

DEFORMED BAR	WELD DIMENSIONS (IN.)		
	S	E	LENGTH (L)
#4	¼	⅛	4
#5	5/16	3/16	6
#6	⅜	3/16	6



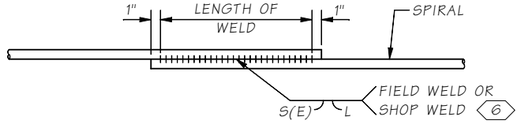
VIEW F



CENTRALIZER DETAIL
5 7 8 9

ELEVATION TABLE

SHAFT	ELEV. "J"	ELEV. "K"
3A	2310.0	2263.0
3B	2310.0	2265.0
3C	2310.0	2266.0



WELDED LAP SPLICE DETAIL

NOTES:

1. CONSTRUCTION JOINT WITH ROUGHENED SURFACE.
2. MINIMUM CONCRETE COVER MINUS ½".
3. SEE STD. SPEC. 6-19.3(3)b5 FOR PERMANENT SLIP CASING.
4. SEE STD. SPEC. 6-19.3(5)c FOR MINIMUM CONCRETE COVER.
5. SEE STD. SPEC. 6-19.3(5)b FOR SPACING REQUIREMENTS.
6. WELDING SHALL MEET THE REQUIREMENTS OF STD. SPEC. 6-02.3(24)E FOR WELD DIMENSIONS, SEE SHAFT SPIRAL OPTIONS TABLE THIS SHEET
7. CENTRALIZERS SHALL BE EPOXY COATED OR PAINTED WITH PAINT CONFORMING TO STANDARD SPECIFICATION 9-08.1(2)c OR 9-08.1(2)f AFTER FABRICATION.
8. EACH LEG SHALL BE TIED TO TWO (2) VERTICAL BAR AND TWO (2) SPIRAL WRAPS.
9. CAGECASTER® REBAR CAGE SPACERS BY FOUNDATION TECHNOLOGIES MAY BE USED IN LIEU OF DETAIL SHOWN. SPACING REQUIREMENTS SHALL BE PER MANUFACTURER'S RECOMMENDATIONS. EACH LEG SHALL BE TIED TO A MINIMUM OF TWO (2) SIPRAL WRAPS.
10. EXCAVATION IN ADVANCE OF THE CASING TIP SHALL NOT EXCEED 2 FEET.
11. THE INSIDE DIAMETER OF PERMANENT CASING AND TEMPORARY CASING ABOVE THE ROCK LINE MAY EXCEED THE SPECIFIED DIAMETER OF THE SHAFT BY UP TO 1 FOOT.

SR I-90 FILE NO. SHEET BJ7

Bridge Design Engr.	Khaleghi, B	M:\X-Team\I-90_WILDLIFE U-XING WB BRIDGE_SCR\window files\PIER3SHAFT.wnd					
Supervisor	Aldrich, BS						
Designed By	Mizumori, A 06/20						
Checked By	Howlett, K 12/21						
Detailed By	Bontemps, W 09/20						
Bridge Projects Engr.							
Prelim. Plan By							
Architect/Specialist		DATE	REVISION	BY	APP'D		

REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
10	WASH.			
JOB NUMBER 19Y007				
CONTRACT NO.				

P.E. STAMP BOX
ANTHONY J. L. MIZUMORI — STATE OF WASHINGTON — 44057 — PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE:

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX
BRIAN S. ALDRICH — STATE OF WASHINGTON — 37834 — PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE:

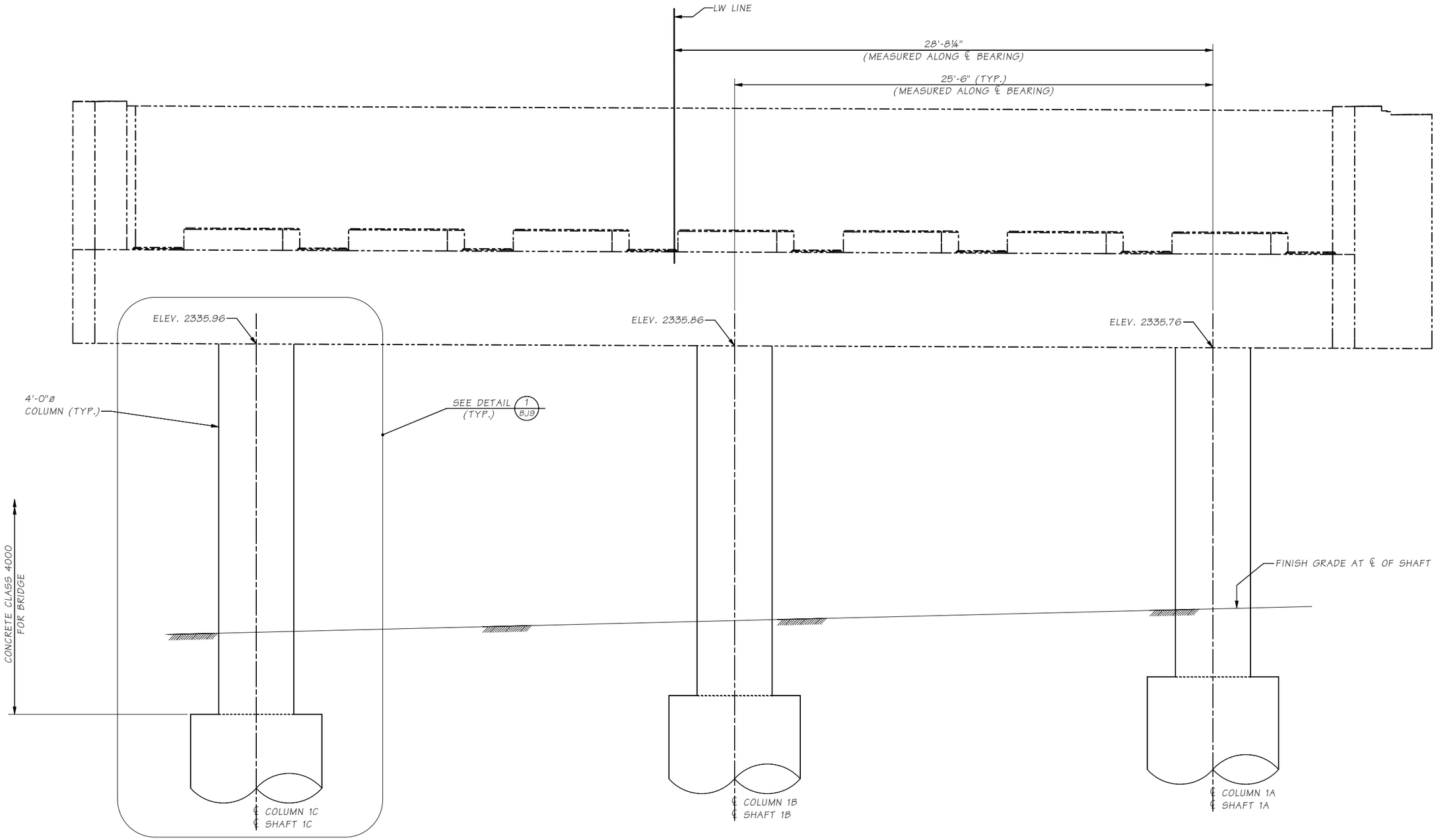
Washington State Department of Transportation

I-90
CABIN CREEK I/C TO W EASTON I/C
PHASE 3 - ADD LANES/WILDLIFE BRIDGES
I-90 WILDLIFE U-XING WB BR. NO. 90/116.7N

PIER 3 SHAFT DETAILS

BRIDGE SHEET NO. BJ7
SHEET 1538 OF 1783 SHEETS

Mon Jan 31 16:03:21 2022



COLUMN ELEVATION ~ PIER 1

LOOKING BACK ON STATIONING

SR I-90 FILE NO. ____ SHEET BJ8

Bridge Design Engr.	Khaleghi, B	M:\X-Team\I-90_WILDLIFE U-XING WB BRIDGE_SCR\window files\PIER1COLUMNDETAILS1.wnd			REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor	Aldrich, BS				10	WASH.			
Designed By	Mizumori, A 06/20				JOB NUMBER 19Y007				
Checked By	Howlett, K 12/21				CONTRACT NO.				
Detailed By	Bontemps, W 09/20								
Bridge Projects Engr.									
Prelim. Plan By									
Architect/Specialist		DATE	REVISION	BY	APP'D				

P.E. STAMP BOX — ANTHONY J. MIZUMORI — STATE OF WASHINGTON — 44357 — PROFESSIONAL ENGINEER — SEE SHEET CT9 — DATE:

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX — BRIAN S. ALDRICH — STATE OF WASHINGTON — 37834 — PROFESSIONAL ENGINEER — SEE SHEET CT9 — DATE:

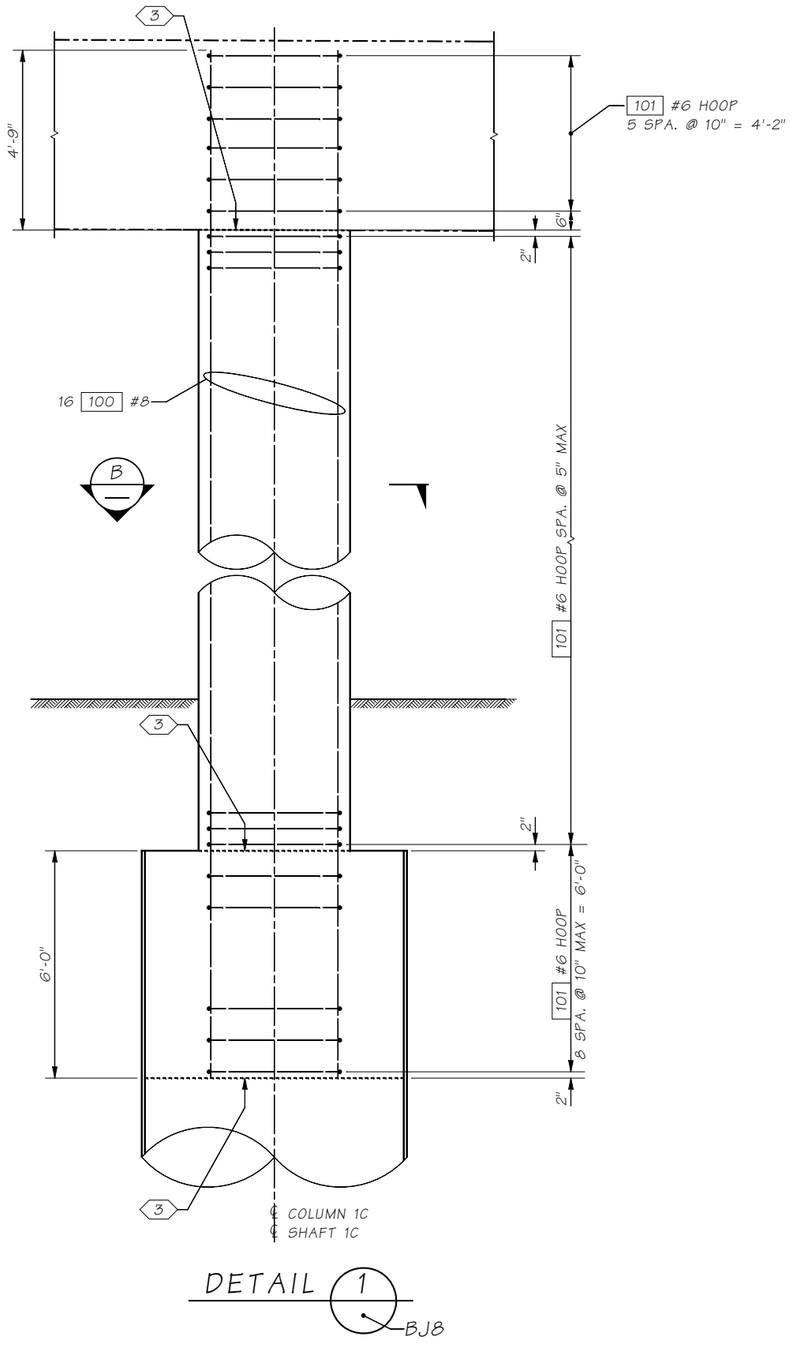
Washington State Department of Transportation

I-90
CABIN CREEK I/C TO W EASTON I/C
PHASE 3 - ADD LANES/WILDLIFE BRIDGES
I-90 WILDLIFE U-XING WB BR. NO. 90/116.7N

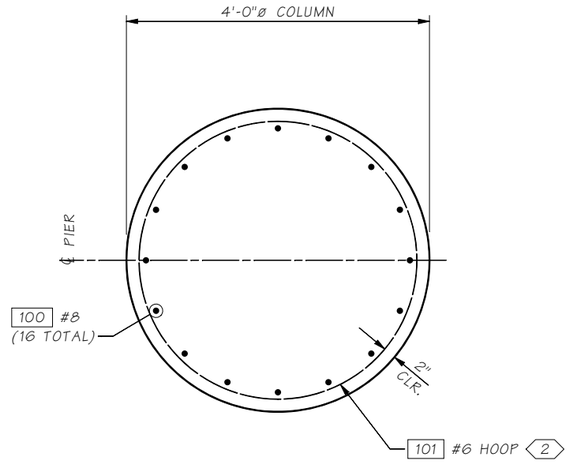
PIER 1 COLUMN DETAILS 1 OF 2

BRIDGE SHEET NO. BJ8
SHEET 1539 OF 1783 SHEETS

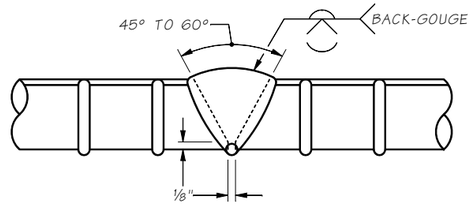
Mon Jan 31 16:05:23 2022



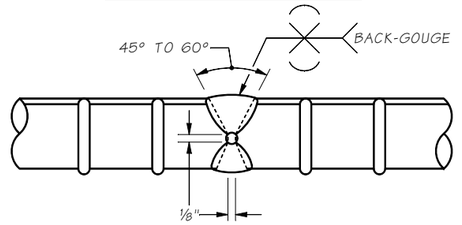
DETAIL 1 — BJ8



SECTION B



SINGLE V-GROOVE WELD



DOUBLE V-GROOVE WELD

HOOP WELD DETAIL

ALL BACKING SHALL BE REMOVED

NOTES:

1. COLUMN DETAILS & REINFORCING TYPICAL FOR ALL COLUMNS.
2. HOOP WELD SHALL BE DIRECT BUTT-WELDED AND CONFORM TO THE CURRENT EDITION OF STRUCTURAL WELDING CODE - REINFORCING STEEL OF AWS(D1.4) AND MEET THE REQUIREMENTS OF STD. SPEC. 6-02.3(24)E. RESISTANCE BUTT WELDED SPLICE MAY BE SUBSTITUTED AT THE CONTRACTOR'S OPTION.
3. CONSTRUCTION JOINT WITH ROUGHENED SURFACE.

SR I-90 FILE NO. ____ SHEET BJ9

Bridge Design Engr.	Khaleghi, B	M:\X-Team\I-90_WILDLIFE U-XING WB BRIDGE_SCR\window files\PIER1COLUMNDETAILS2.wnd									
Supervisor	Aldrich, BS										
Designed By	Mizumori, A 06/20										
Checked By	Howlett, K 12/21										
Detailed By	Bontemps, W 09/20										
Bridge Projects Engr.											
Prelim. Plan By											
Architect/Specialist		DATE	REVISION	BY	APP'D						

REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
10	WASH.			
JOB NUMBER 19Y007				
CONTRACT NO.				

P.E. STAMP BOX — ANTHONY J. I. MIZUMORI — STATE OF WASHINGTON — 44257 — REGISTERED PROFESSIONAL ENGINEER — SEE SHEET CT9 — DATE:

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX — BRIAN S. ALDRICH — STATE OF WASHINGTON — 37834 — REGISTERED PROFESSIONAL ENGINEER — SEE SHEET CT9 — DATE:

Washington State Department of Transportation

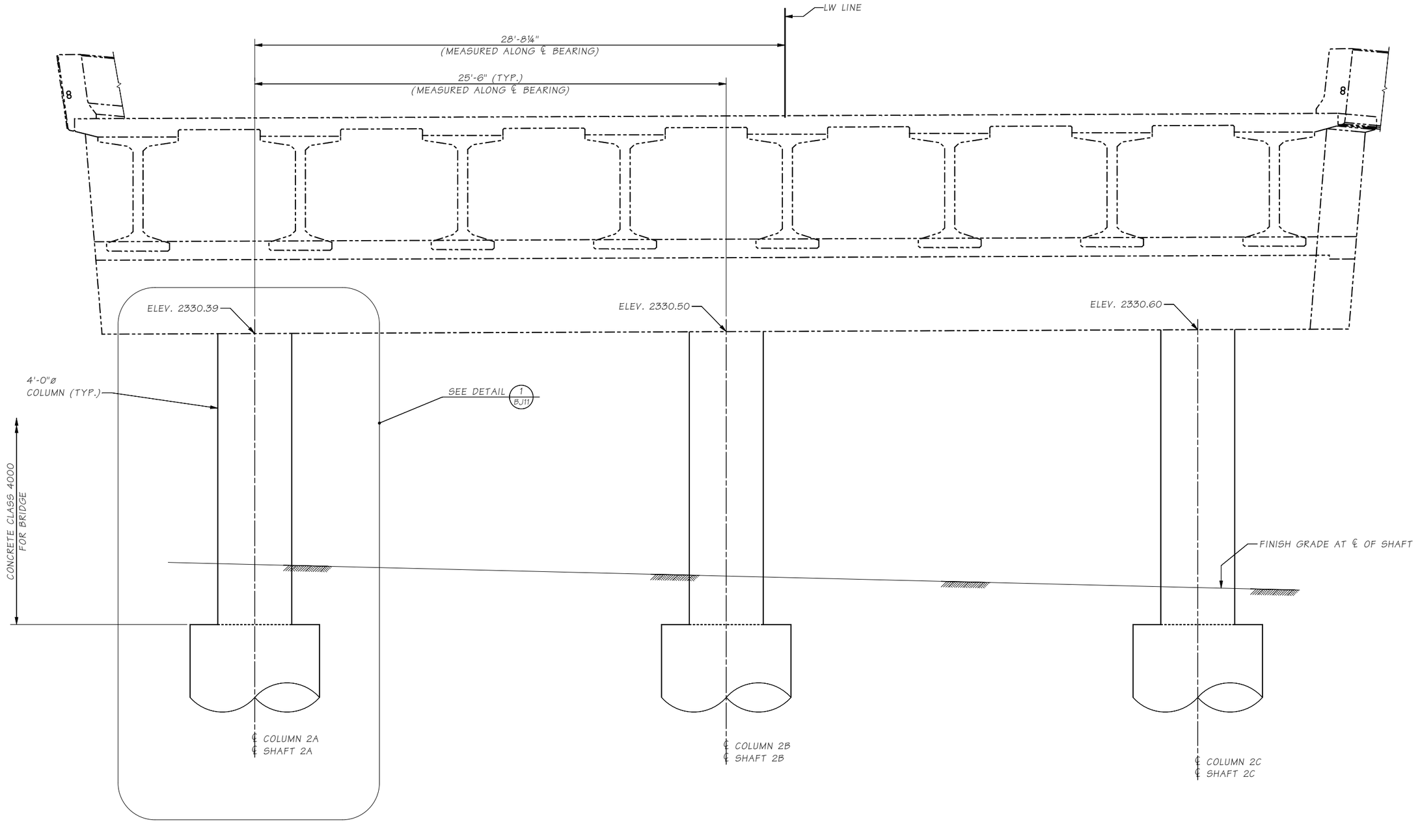
I-90
CABIN CREEK I/C TO W EASTON I/C
PHASE 3 - ADD LANES/WILDLIFE BRIDGES
I-90 WILDLIFE U-XING WB BR. NO. 90/116.7N

PIER 1 COLUMN DETAILS 2 OF 2

BRIDGE SHEET NO. BJ9

SHEET 1540 OF 1783 SHEETS

Mon Jan 31 16:03:24 2022



COLUMN ELEVATION ~ PIER 2

SR I-90 FILE NO. ____ SHEET BJ10

Bridge Design Engr.	Khaleghi, B	M:\X-Team\I-90_WILDLIFE U-XING WB BRIDGE_SCR\window files\PIER2COLUMNDETAILS1.wnd			REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor	Aldrich, BS				10	WASH.			
Designed By	Mizumori, A 06/20				JOB NUMBER 19Y007				
Checked By	Howlett, K 12/21				CONTRACT NO.				
Detailed By	Bontemps, W 09/20								
Bridge Projects Engr.									
Prelim. Plan By									
Architect/Specialist		DATE	REVISION	BY	APP'D				

P.E. STAMP BOX — ANTHONY J. I. MIZUMORI — STATE OF WASHINGTON — 14357 — PROFESSIONAL ENGINEER — SEE SHEET CT9 — DATE:

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX — BRIAN S. ALDRICH — STATE OF WASHINGTON — 37934 — PROFESSIONAL ENGINEER — SEE SHEET CT9 — DATE:

Washington State Department of Transportation

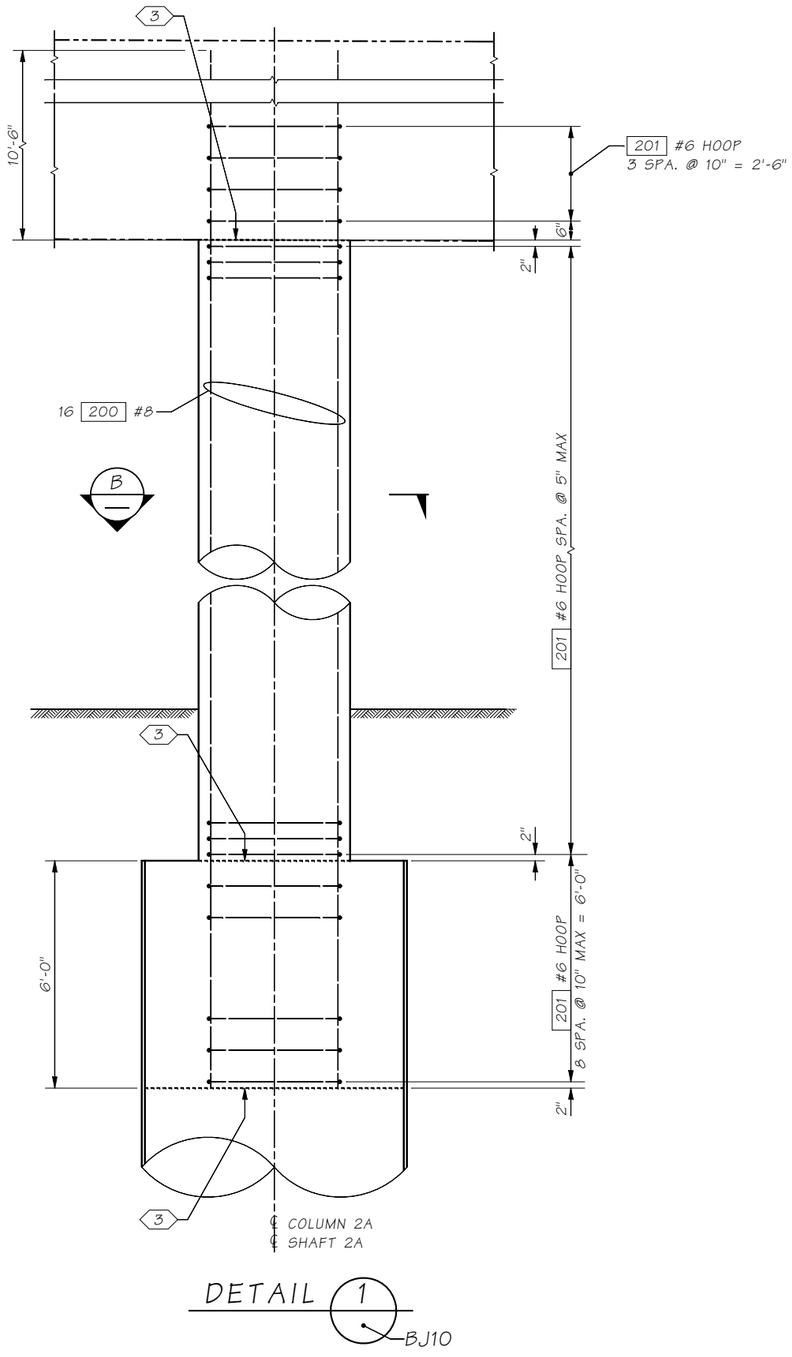
I-90
CABIN CREEK I/C TO W EASTON I/C
PHASE 3 - ADD LANES/WILDLIFE BRIDGES
I-90 WILDLIFE U-XING WB BR. NO. 90/116.7N

PIER 2 COLUMN DETAILS 1 OF 2

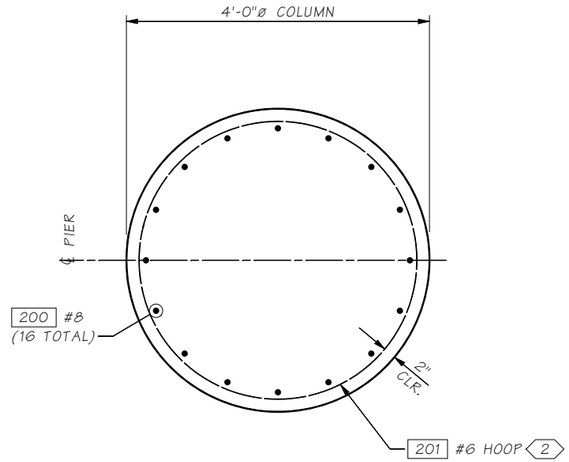
BRIDGE SHEET NO. BJ10

SHEET 1541 OF 1783 SHEETS

Mon Jan 31 16:03:25 2022



DETAIL 1 — BJ10



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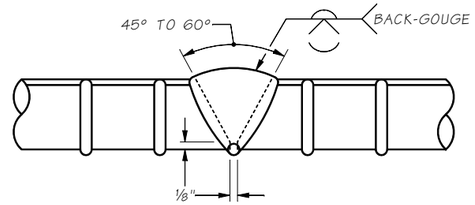
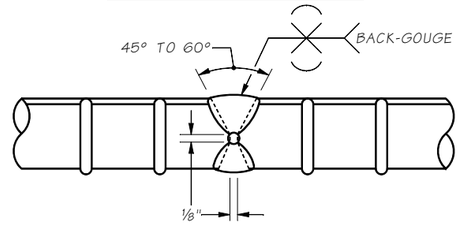


SINGLE V-GROOVE WELD



DOUBLE V-GROOVE WELD

HOOP WELD DETAIL

ALL BACKING SHALL BE REMOVED

NOTES:

1. COLUMN DETAILS & REINFORCING TYPICAL FOR ALL COLUMNS.
2. HOOP WELD SHALL BE DIRECT BUTT-WELDED AND CONFORM TO THE CURRENT EDITION OF STRUCTURAL WELDING CODE - REINFORCING STEEL OF AWS(D1.4) AND MEET THE REQUIREMENTS OF STD. SPEC. 6-02.3(24)E. RESISTANCE BUTT WELDED SPLICE MAY BE SUBSTITUTED AT THE CONTRACTOR'S OPTION.
3. CONSTRUCTION JOINT WITH ROUGHENED SURFACE.

SR I-90 FILE NO. ____ SHEET BJ11

Bridge Design Engr.	Khaleghi, B	M:\X-Team\I-90_WILDLIFE U-XING WB BRIDGE_SCR\window files\PIER2COLUMNDETAILS2.wnd			REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor	Aldrich, BS				10	WASH.			
Designed By	Mizumori, A 06/20				JOB NUMBER 19Y007				
Checked By	Howlett, K 12/21				CONTRACT NO.				
Detailed By	Bontemps, W 09/20								
Bridge Projects Engr.									
Prelim. Plan By									
Architect/Specialist		DATE	REVISION	BY	APP'D				

P.E. STAMP BOX — ANTHONY J. I. MIZUMORI — STATE OF WASHINGTON — 44257 — PROFESSIONAL ENGINEER — STRUCTURAL ENGINEER
SEE SHEET CT9
DATE:

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX — BRIAN S. ALDRICH — STATE OF WASHINGTON — 37834 — PROFESSIONAL ENGINEER — STRUCTURAL ENGINEER
SEE SHEET CT9
DATE:

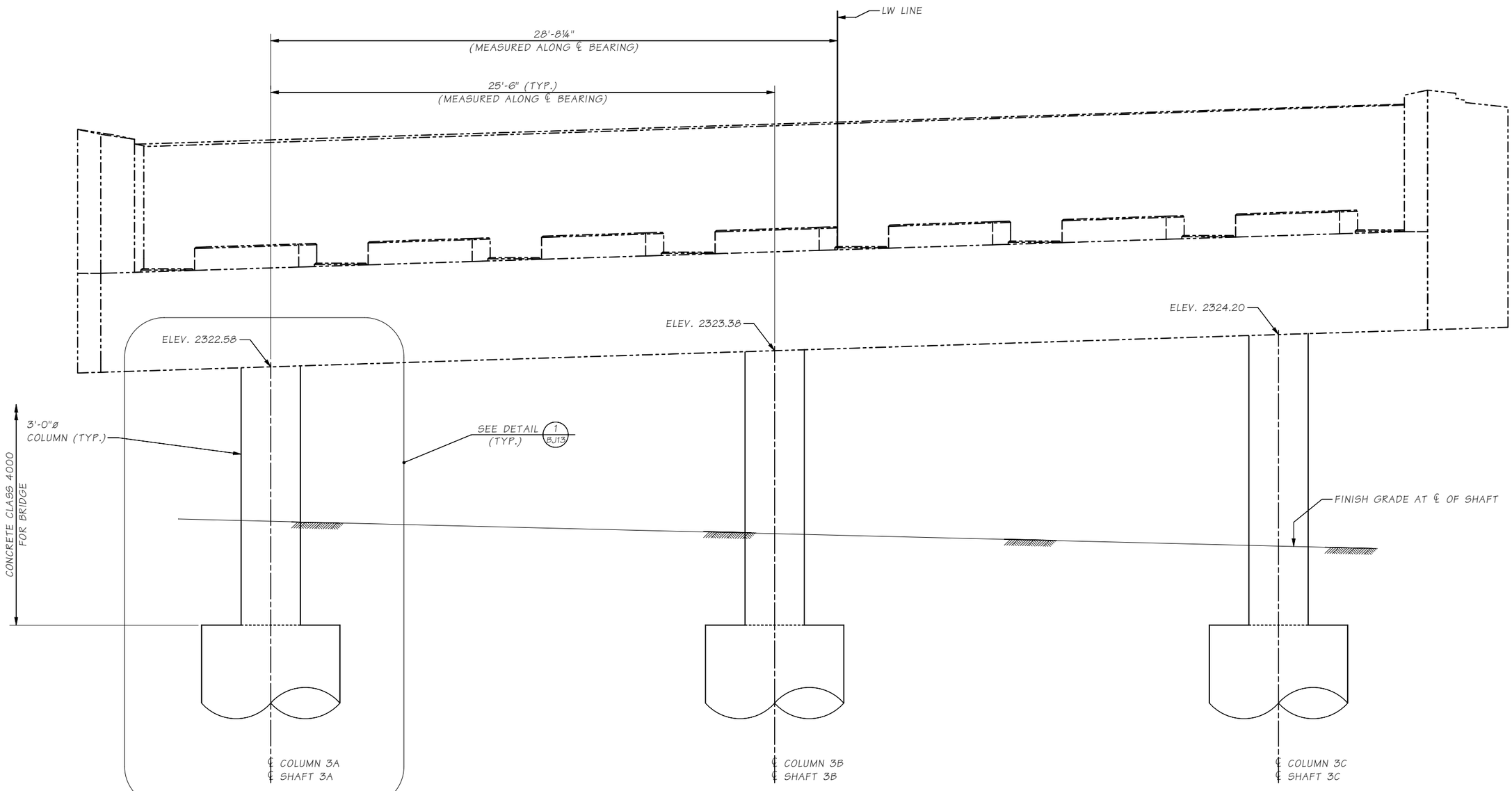
Washington State Department of Transportation

I-90
CABIN CREEK I/C TO W EASTON I/C
PHASE 3 - ADD LANES/WILDLIFE BRIDGES
I-90 WILDLIFE U-XING WB BR. NO. 90/116.7N

PIER 2 COLUMN DETAILS 2 OF 2

BRIDGE SHEET NO. BJ11
SHEET 1542 OF 1783 SHEETS

Mon Jan 31 16:03:26 2022



COLUMN ELEVATION ~ PIER 3

SR I-90 FILE NO. ____ SHEET BJ12

Bridge Design Engr.	Khaleghi, B	M:\X-Team\I-90_WILDLIFE U-XING WB BRIDGE_SCR\window files\PIER3COLUMNDETAILS1.wnd			REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor	Aldrich, BS				10	WASH.			
Designed By	Mizumori, A 06/20				JOB NUMBER 19Y007				
Checked By	Howlett, K 12/21				CONTRACT NO.				
Detailed By	Bontemps, W 09/20								
Bridge Projects Engr.									
Prelim. Plan By									
Architect/Specialist		DATE	REVISION	BY	APP'D				

P.E. STAMP BOX: ANTHONY J. I. MIZUMORI, STATE OF WASHINGTON, 44357, PROFESSIONAL ENGINEER — SEE SHEET CT9 — DATE:

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX: BERLIN S. ALDRICH, STATE OF WASHINGTON, 37834, PROFESSIONAL ENGINEER — SEE SHEET CT9 — DATE:

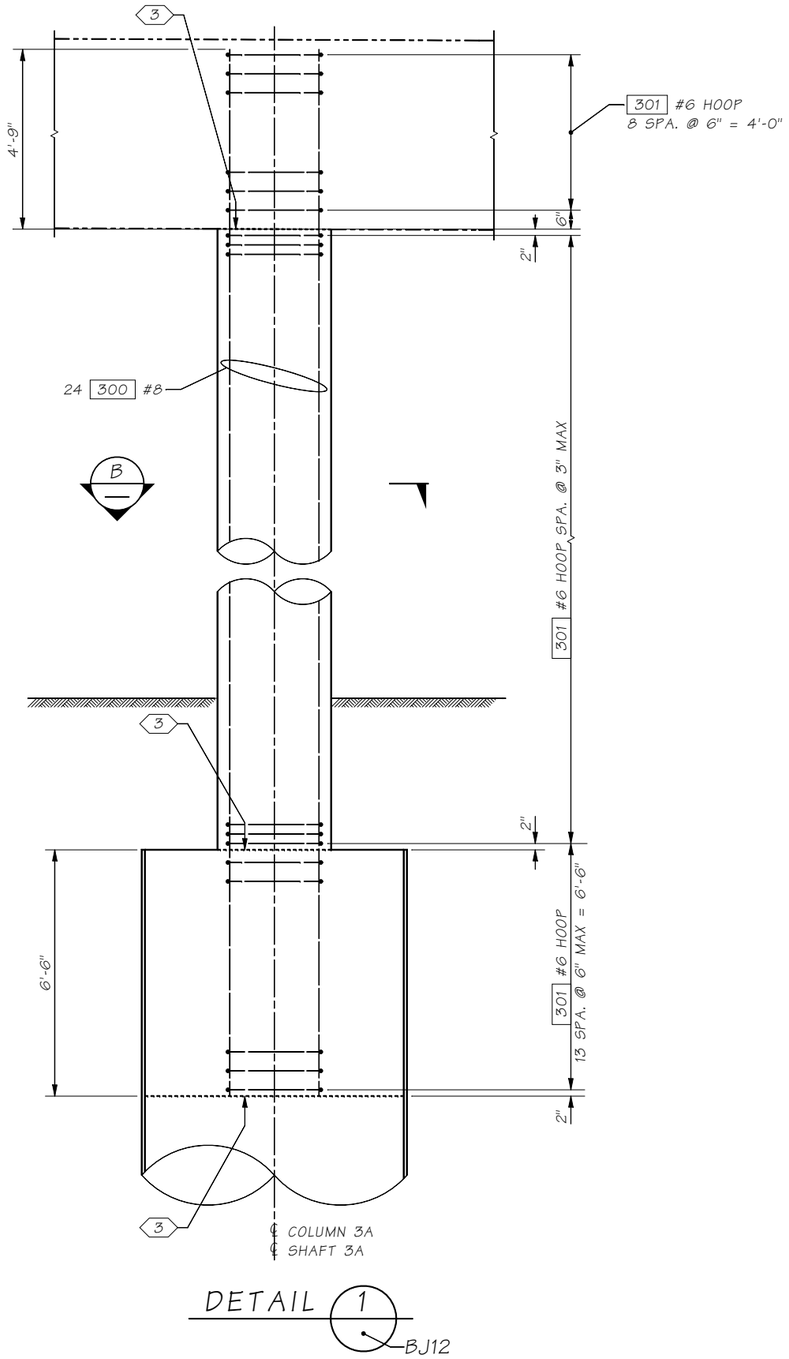
Washington State Department of Transportation

I-90
CABIN CREEK I/C TO W EASTON I/C
PHASE 3 - ADD LANES/WILDLIFE BRIDGES
I-90 WILDLIFE U-XING WB BR. NO. 90/116.7N

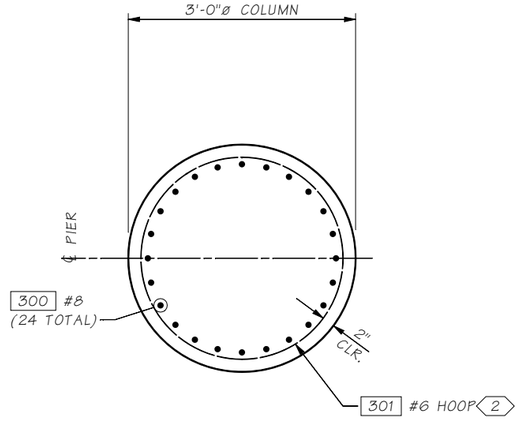
PIER 3 COLUMN DETAILS 1 OF 2

BRIDGE SHEET NO. BJ12
SHEET 1543 OF 1783 SHEETS

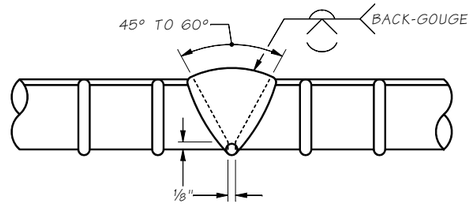
Mon Jan 31 16:05:27 2022



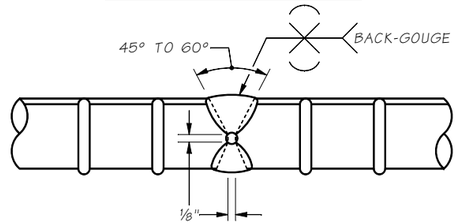
DETAIL 1 — BJ12



SECTION B



SINGLE V-GROOVE WELD



DOUBLE V-GROOVE WELD

HOOP WELD DETAIL

ALL BACKING SHALL BE REMOVED

NOTES:

1. COLUMN DETAILS & REINFORCING TYPICAL FOR ALL COLUMNS.

2. HOOP WELD SHALL BE DIRECT BUTT-WELDED AND CONFORM TO THE CURRENT EDITION OF STRUCTURAL WELDING CODE - REINFORCING STEEL OF AWS(D1.4) AND MEET THE REQUIREMENTS OF STD. SPEC. 6-02.3(24)E. RESISTANCE BUTT WELDED SPLICE MAY BE SUBSTITUTED AT THE CONTRACTOR'S OPTION.

3. CONSTRUCTION JOINT WITH ROUGHENED SURFACE.

SR I-90 FILE NO. SHEET BJ13

Bridge Design Engr.	Khaleghi, B	M:\X-Team\I-90_WILDLIFE U-XING WB BRIDGE_SCR\window files\PIER3COLUMNDETAILS2.wnd				REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor	Aldrich, BS					10	WASH.			
Designed By	Mizumori, A 06/20					JOB NUMBER 19Y007				
Checked By	Howlett, K 12/21					CONTRACT NO.				
Detailed By	Bontemps, W 09/20									
Bridge Projects Engr.										
Prelim. Plan By										
Architect/Specialist		DATE	REVISION	BY	APP'D					

Mon Jan 31 16:03:28 2022

P.E. STAMP BOX — ANTHONY J. I. MIZUMORI — STATE OF WASHINGTON — 44207 — REGISTERED PROFESSIONAL ENGINEER — STRUCTURAL ENGINEER
SEE SHEET CT9
DATE:

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX — BRIAN S. ALDRICH — STATE OF WASHINGTON — 37834 — REGISTERED PROFESSIONAL ENGINEER — STRUCTURAL ENGINEER
SEE SHEET CT9
DATE

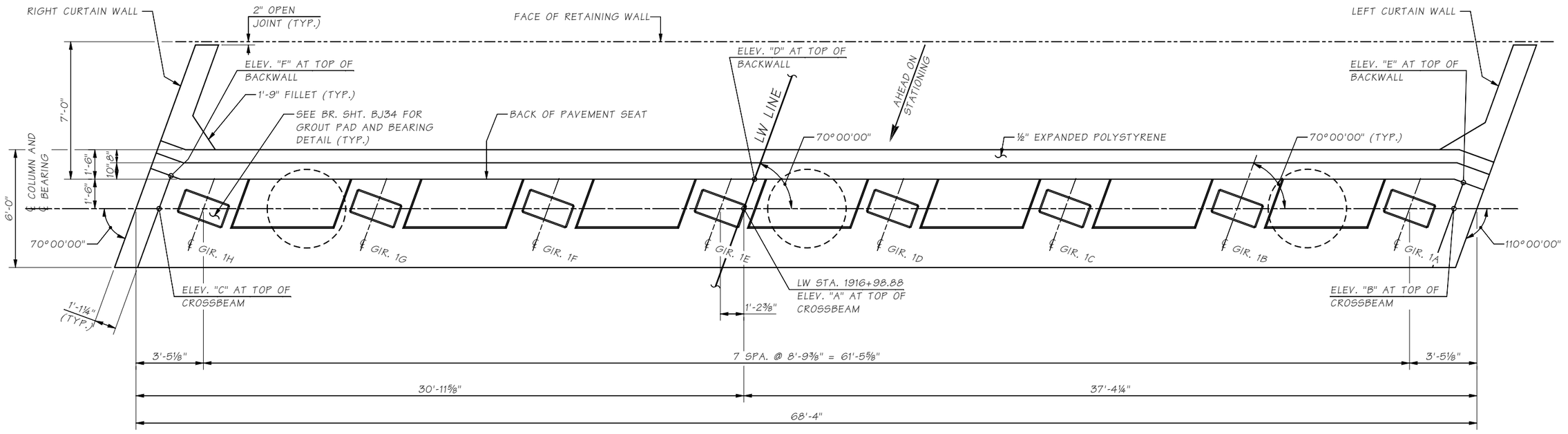
Washington State Department of Transportation

I-90
CABIN CREEK I/C TO W EASTON I/C
PHASE 3 - ADD LANES/WILDLIFE BRIDGES
I-90 WILDLIFE U-XING WB BR. NO. 90/116.7N

PIER 3 COLUMN DETAILS 2 OF 2

BRIDGE SHEET NO. BJ13

SHEET 1544 OF 1783 SHEETS



PLAN

NOTES:

1. SEE "TABLE OF ELEVATIONS" BR. SHT. BJ15 FOR TOP OF CROSSBEAM AND TOP OF BACKWALL ELEVATIONS.
2. SEE ARCHITECTURAL TREATMENT DETAIL ON BR. SHT. BJ56

SR I-90 FILE NO. ____ SHEET BJ14

Bridge Design Engr.	Khaleghi, B	M:\X-Team\I-90_WILDLIFE U-XING WB BRIDGE_SCR\window files\PIER1PLAN.wnd							
Supervisor	Aldrich, BS								
Designed By	Mizumori, A 06/20								
Checked By	Howlett, K 12/21								
Detailed By	Bontemps, W 06/20								
Bridge Projects Engr.									
Prelim. Plan By									
Architect/Specialist		DATE	REVISION	BY	APP'D				

REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
10	WASH.			
JOB NUMBER 19Y007				
CONTRACT NO.				

P.E. STAMP BOX — ANTHONY J. MIZUMORI — STATE OF WASHINGTON — 44057 — PROFESSIONAL ENGINEER — SEE SHEET CT9 — DATE:

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX — BERLIN S. ALDRICH — STATE OF WASHINGTON — 37854 — PROFESSIONAL ENGINEER — SEE SHEET CT9 — DATE:

Washington State Department of Transportation

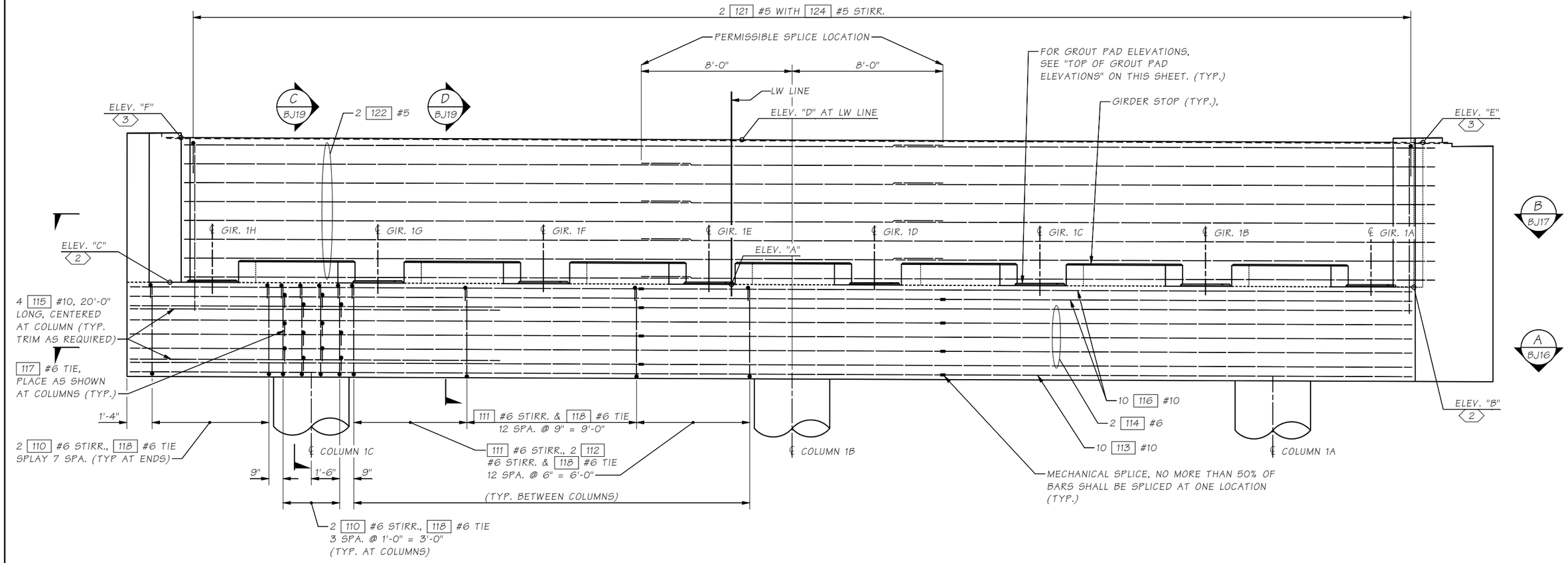
I-90
CABIN CREEK I/C TO W EASTON I/C
PHASE 3 - ADD LANES/WILDLIFE BRIDGES
I-90 WILDLIFE U-XING WB BR. NO. 90/116.7N

PIER 1 PLAN

BRIDGE SHEET NO. BJ14

SHEET 1545 OF 1783 SHEETS

Mon Jan 31 16:03:29 2022



ELEVATION

LOOKING BACK ON STATIONING

NOTES:

1. PRIOR TO GROUT PAD PLACEMENT VERIFY THAT GIRDER CAMBERS ARE WITHIN THE UPPER AND LOWER BOUND "D" DIMENSIONS AS SHOWN IN THE GIRDER SCHEDULE. OTHERWISE NOTIFY THE ENGINEER TO VERIFY REQUIRED GROUT PAD ELEVATIONS.
2. TOP OF CROSSBEAM ELEVATION TAKEN AT INSIDE FACE OF CURTAIN WALL ALONG ℄ BEARING.
3. TOP OF BACKWALL ELEVATION TAKEN AT INSIDE FACE OF CURTAIN WALL AND FRONT FACE OF BACKWALL.
4. REINFORCEMENT TO HAVE 2'-6" MIN. LAP SPLICE WHEN REQUIRED. STAGGER SPLICES ON ADJACENT REINFORCEMENT BARS.

TABLE OF ELEVATIONS	
ELEV. "A"	2340.93
ELEV. "B"	2340.79
ELEV. "C"	2341.05
ELEV. "D"	2347.47
ELEV. "E"	2347.32
ELEV. "F"	2347.60

TOP OF GROUT PAD ELEVATIONS 1

GIRDER	1A	1B	1C	1D	1E	1F	1G	1H
ELEV.	2340.93	2340.96	2340.99	2341.03	2341.06	2341.10	2341.13	2341.17

SR I-90 FILE NO. SHEET BJ15

Bridge Design Engr.	Khaleghi, B	M:\X-Team\I-90_WILDLIFE U-XING WB BRIDGE_SCR\window files\PIER1ELEV.wnd			REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor	Aldrich, BS				10	WASH.			
Designed By	Mizumori, A 06/20				JOB NUMBER 19Y007				
Checked By	Howlett, K 12/21				CONTRACT NO.				
Detailed By	Wrenn, M 06/20								
Bridge Projects Engr.									
Prelim. Plan By									
Architect/Specialist		DATE	REVISION	BY	APP'D				

Mon Jan 31 16:03:30 2022

P.E. STAMP BOX — ANTHONY J. I. MIZUMORI — STATE OF WASHINGTON — 44257 — REGISTERED PROFESSIONAL ENGINEER — SEE SHEET CT9 — DATE:

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX — BRIAN S. ALDRICH — STATE OF WASHINGTON — 37834 — REGISTERED PROFESSIONAL ENGINEER — SEE SHEET CT9 — DATE:

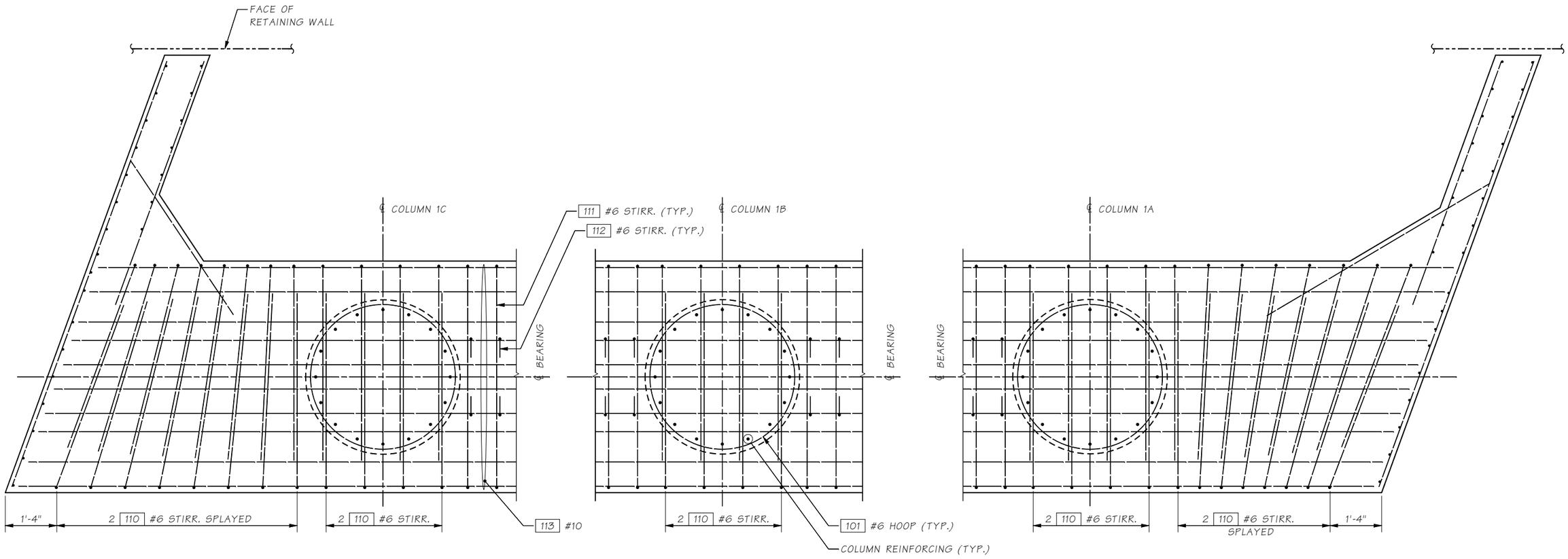
Washington State Department of Transportation

I-90
CABIN CREEK I/C TO W EASTON I/C
PHASE 3 - ADD LANES/WILDLIFE BRIDGES
I-90 WILDLIFE U-XING WB BR. NO. 90/116.7N

PIER 1 ELEVATION

BRIDGE SHEET NO. BJ15

SHEET 1546 OF 1783 SHEETS



SECTION A
BJ15

SR I-90 FILE NO. SHEET BJ16

Bridge Design Engr.	Khaleghi, B	M:\X-Team\I-90_WILDLIFE U-XING WB BRIDGE_SCR\window files\PIER1X-BEAMDTLS1.wnd				REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor	Aldrich, BS					10	WASH.			
Designed By	Mizumori, A 06/20					JOB NUMBER 19Y007				
Checked By	Howlett, K 12/21					CONTRACT NO.				
Detailed By	Wrenn, M 09/20									
Bridge Projects Engr.										
Prelim. Plan By										
Architect/Specialist		DATE	REVISION	BY	APP'D					

P.E. STAMP BOX
ANTHONY J. J. MIZUMORI
STATE OF WASHINGTON
44057
STRUCTURAL ENGINEER
PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE:

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX
BERLIN S. ALDRICH
STATE OF WASHINGTON
37834
STRUCTURAL ENGINEER
PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE:

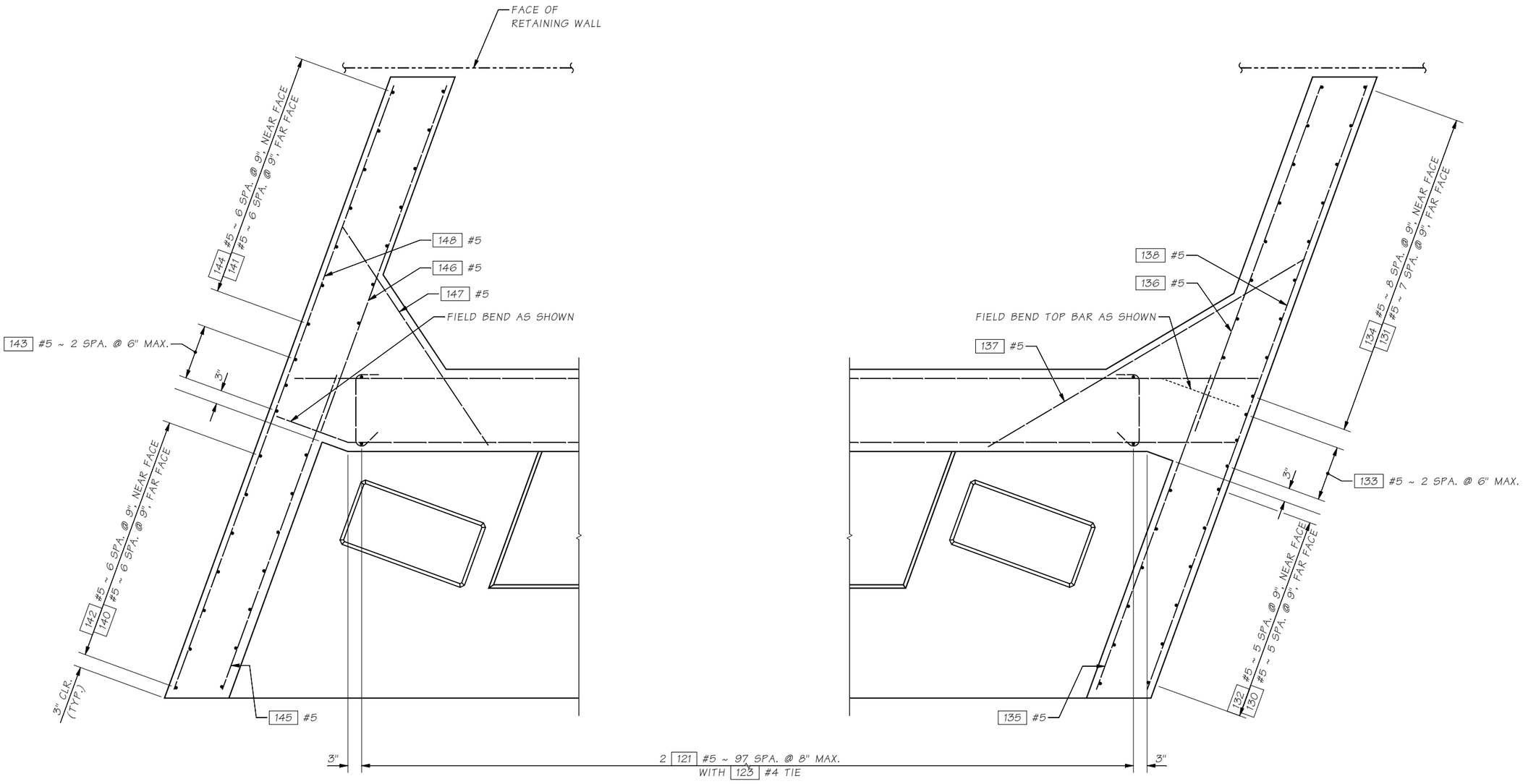
Washington State Department of Transportation

I-90
CABIN CREEK I/C TO W EASTON I/C
PHASE 3 - ADD LANES/WILDLIFE BRIDGES
I-90 WILDLIFE U-XING WB BR. NO. 90/116.7N

PIER 1 CROSSBEAM
DETAILS 1 OF 4

BRIDGE SHEET NO. BJ16
SHEET 1547 OF 1783 SHEETS

Mon Jan 31 16:03:32 2022



SECTION B
BJ15

SR I-90 FILE NO. ____ SHEET BJ17

Bridge Design Engr.	Khaleghi, B	M:\X-Team\I-90_WILDLIFE U-XING WB BRIDGE_SCR\window files\PIER1X-BEAMDTLS2.wnd				REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor	Aldrich, BS					10	WASH.			
Designed By	Mizumori, A 06/20					JOB NUMBER 19Y007				
Checked By	Howlett, K 12/21					CONTRACT NO.				
Detailed By	Wrenn, M 09/20									
Bridge Projects Engr.										
Prelim. Plan By										
Architect/Specialist		DATE	REVISION	BY	APP'D					

P.E. STAMP BOX
ANTHONY J. I. MIZUMORI
STATE OF WASHINGTON
14357
PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE:

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX
BRIAN S. ALDRICH
STATE OF WASHINGTON
37934
PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE:

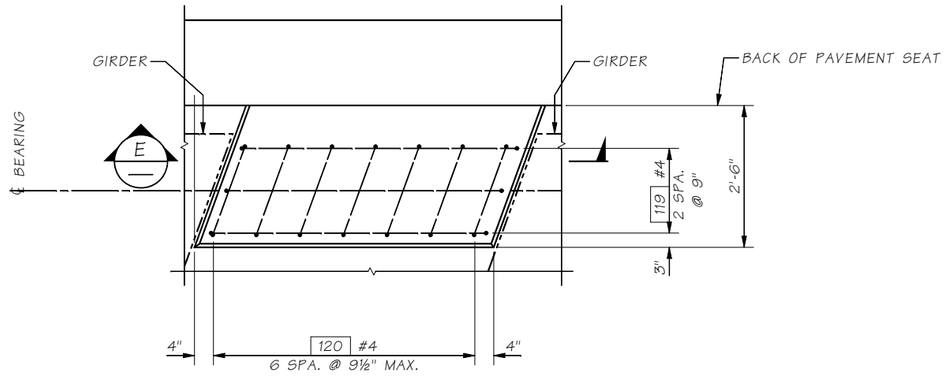
Washington State
Department of Transportation

I-90
CABIN CREEK I/C TO W EASTON I/C
PHASE 3 - ADD LANES/WILDLIFE BRIDGES
I-90 WILDLIFE U-XING WB BR. NO. 90/116.7N

PIER 1 CROSSBEAM
DETAILS 2 OF 4

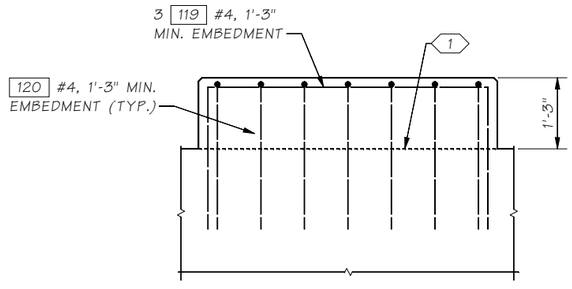
BRIDGE SHEET NO. BJ17
SHEET 1548 OF 1783 SHEETS

Mon Jan 31 16:03:33 2022



GIRDER STOP DETAIL

SEE BR. SHT. BJ34
FOR ADDITIONAL INFORMATION.



SECTION E

NOTES:

1. CONSTRUCTION JOINT WITH ROUGHENED SURFACE.

SR I-90 FILE NO. ____ SHEET BJ18

Bridge Design Engr.	Khaleghi, B	M:\X-Team\I-90_WILDLIFE U-XING WB BRIDGE_SCR\window files\PIER1X-BEAMDTLS3.wnd				REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor	Aldrich, BS					10	WASH.			
Designed By	Mizumori, A 06/20					JOB NUMBER 19Y007				
Checked By	Howlett, K 12/21					CONTRACT NO.				
Detailed By	Bontemps, W 09/20									
Bridge Projects Engr.										
Prelim. Plan By										
Architect/Specialist		DATE	REVISION	BY	APP'D					

P.E. STAMP BOX
ANTHONY J. I. MIZUMORI
STATE OF WASHINGTON
14357
PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE:

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX
BRIAN S. ALDRICH
STATE OF WASHINGTON
37854
PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE:

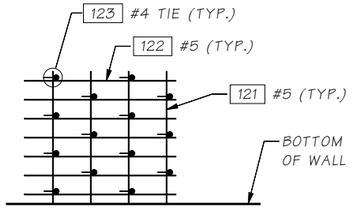
Washington State Department of Transportation

I-90
CABIN CREEK I/C TO W EASTON I/C
PHASE 3 - ADD LANES/WILDLIFE BRIDGES
I-90 WILDLIFE U-XING WB BR. NO. 90/116.7N

PIER 1 CROSSBEAN
DETAILS 3 OF 4

BRIDGE SHEET NO. BJ18
SHEET 1549 OF 1783 SHEETS

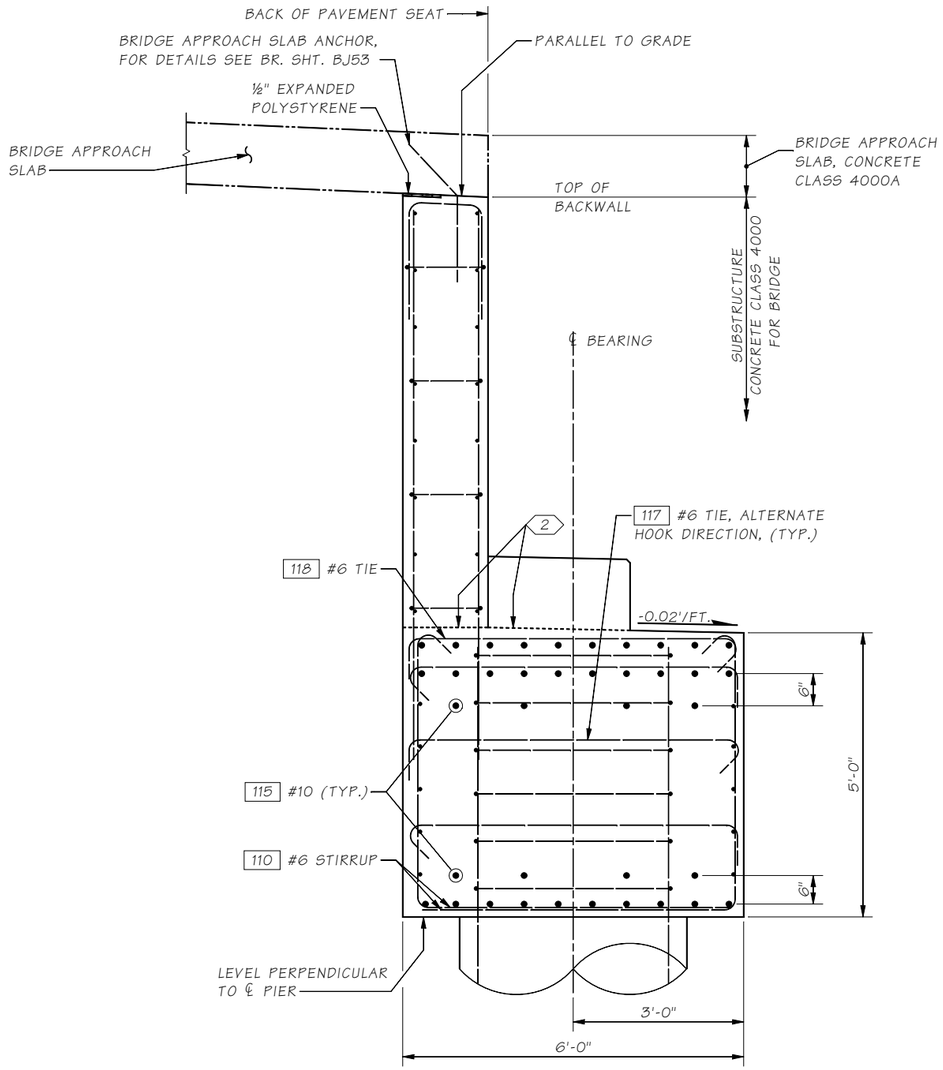
Mon Jan 31 16:03:34 2022



TIE BAR SPACING DETAIL

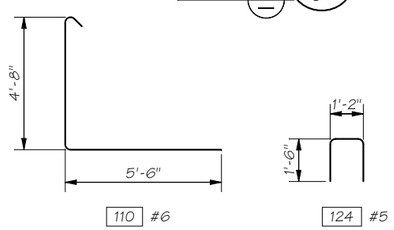
TIE BAR DETAIL

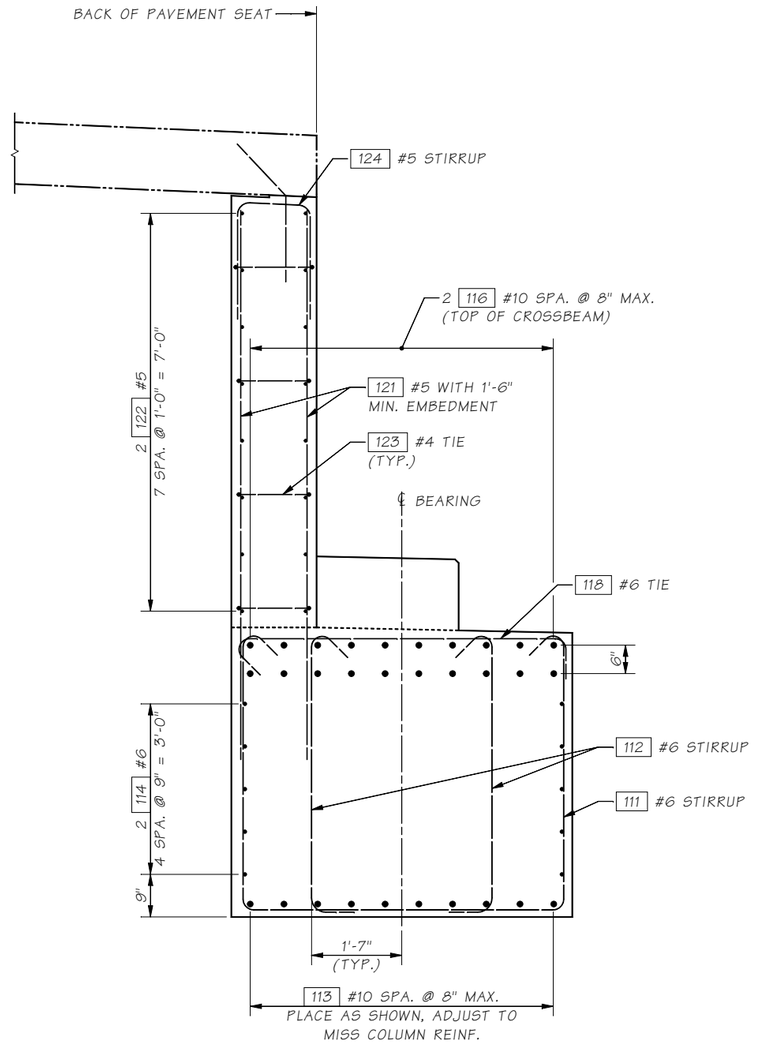
CONSTANT WIDTH SECTION
ALTERNATE 135° BEND EVERY OTHER TIE.



SECTION C BJ15

FOR DETAILS NOT SHOWN SEE SECTION D — BJ15





SECTION D BJ15

FOR DETAILS NOT SHOWN SEE SECTION C — BJ15

NOTES:

1. LONGITUDINAL DIMENSIONS ARE NORMAL TO SKEW.
2. CONSTRUCTION JOINT WITH ROUGHENED SURFACE.

SR I-90 FILE NO. SHEET BJ19

Bridge Design Engr.	Khaleghi, B	M:\X-Team\I-90_WILDLIFE U-XING WB BRIDGE_SCR\window files\PIER1X-BEAMDTLS4.wnd				REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor	Aldrich, BS					10	WASH.			
Designed By	Mizumori, A 06/20					JOB NUMBER 19Y007				
Checked By	Howlett, K 12/21					CONTRACT NO.				
Detailed By	Wrenn, M 06/20									
Bridge Projects Engr.										
Prelim. Plan By										
Architect/Specialist		DATE	REVISION	BY	APP'D					

P.E. STAMP BOX — ANTHONY J. MIZUMORI, STATE OF WASHINGTON, 44257, PROFESSIONAL ENGINEER — SEE SHEET CT9 — DATE:

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX — BRIAN S. ALDRICH, STATE OF WASHINGTON, 37834, PROFESSIONAL ENGINEER — SEE SHEET CT9 — DATE:

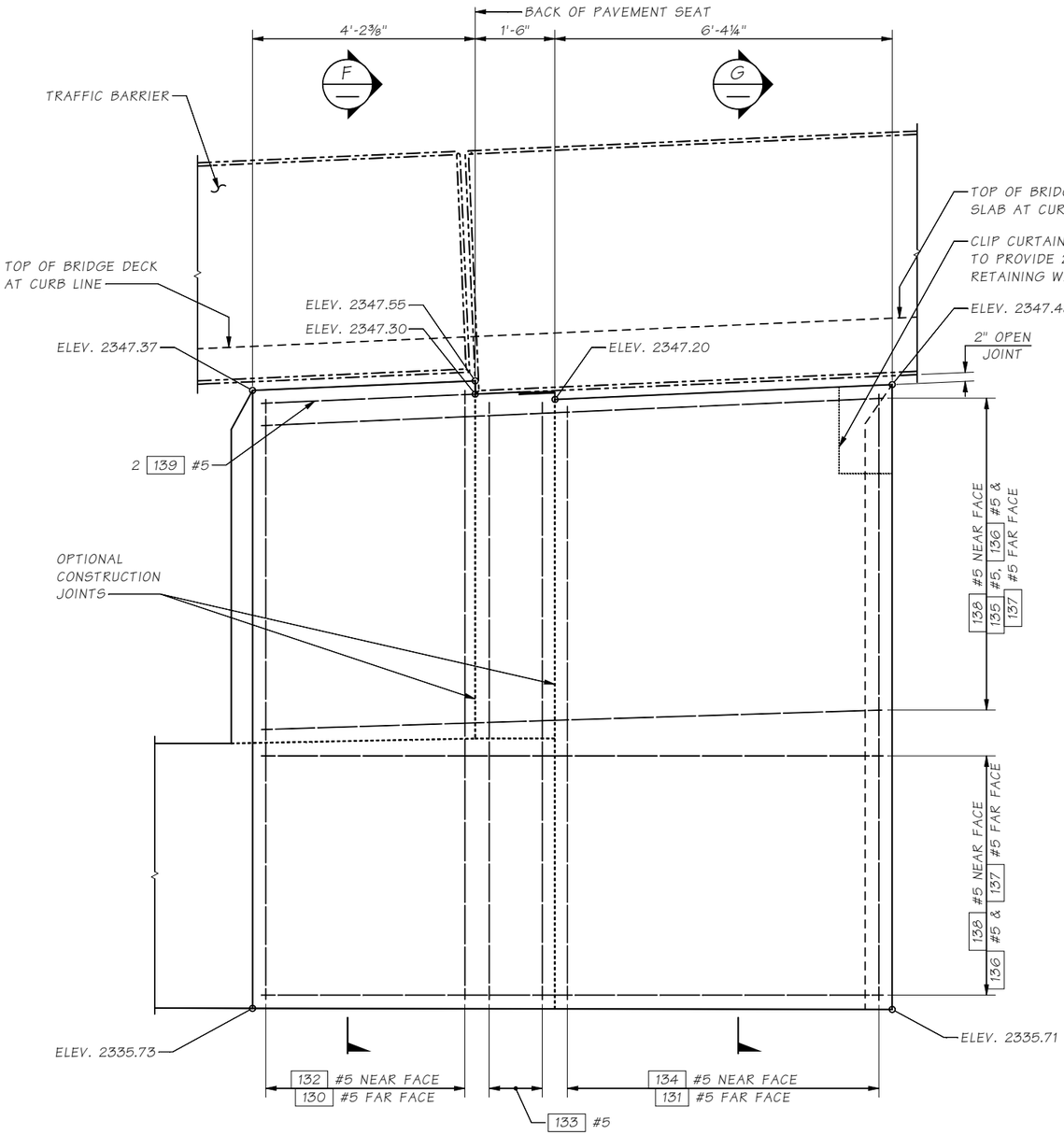
Washington State Department of Transportation

I-90
CABIN CREEK I/C TO W EASTON I/C
PHASE 3 - ADD LANES/WILDLIFE BRIDGES
I-90 WILDLIFE U-XING WB BR. NO. 90/116.7N

PIER 1 CROSSBEAM DETAILS 4 OF 4

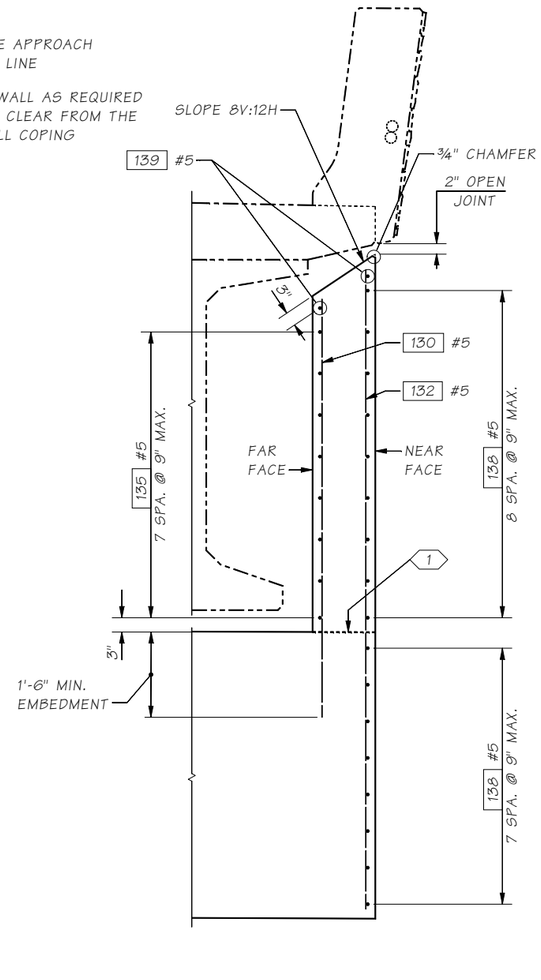
BRIDGE SHEET NO. BJ19
SHEET 1550 OF 1783 SHEETS

Mon Jan 31 16:03:35 2022

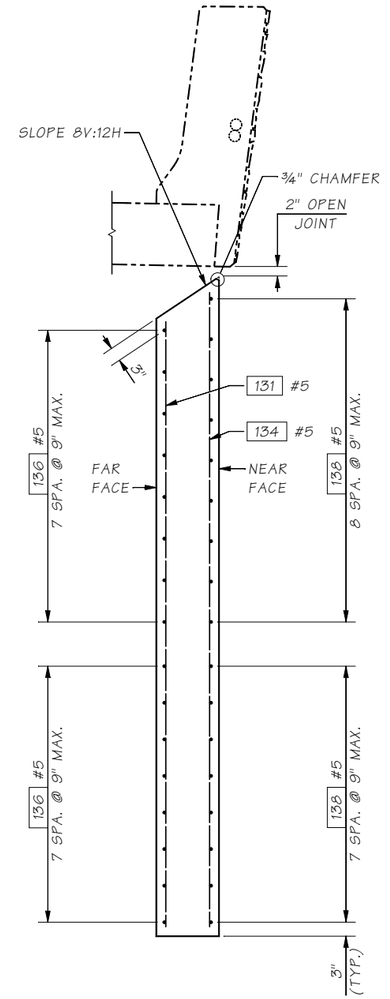


OUTSIDE ELEVATION LEFT CURTAIN WALL

ALL ELEVATIONS ARE AT NEAR FACE OF CURTAIN WALL



SECTION F



SECTION G

NOTES:

1. CONSTRUCTION JOINT WITH ROUGHENED SURFACE.

SR I-90 FILE NO. ____ SHEET BJ20

Bridge Design Engr.	Khaleghi, B	M:\X-Team\I-90_WILDLIFE U-XING WB BRIDGE_SCR\window files\PIER1CURTAINWALL.wnd			REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor	Aldrich, BS				10	WASH.			
Designed By	Mizumori, A 06/20				JOB NUMBER 19Y007				
Checked By	Howlett, K 12/21				CONTRACT NO.				
Detailed By	Wrenn, M 06/20								
Bridge Projects Engr.									
Prelim. Plan By									
Architect/Specialist		DATE	REVISION	BY	APP'D				

P.E. STAMP BOX — ANTHONY J. I. MIZUMORI, STATE OF WASHINGTON, 44857, PROFESSIONAL ENGINEER — SEE SHEET CT9 — DATE:

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX — BRIAN S. ALDRICH, STATE OF WASHINGTON, 37834, PROFESSIONAL ENGINEER — SEE SHEET CT9 — DATE:

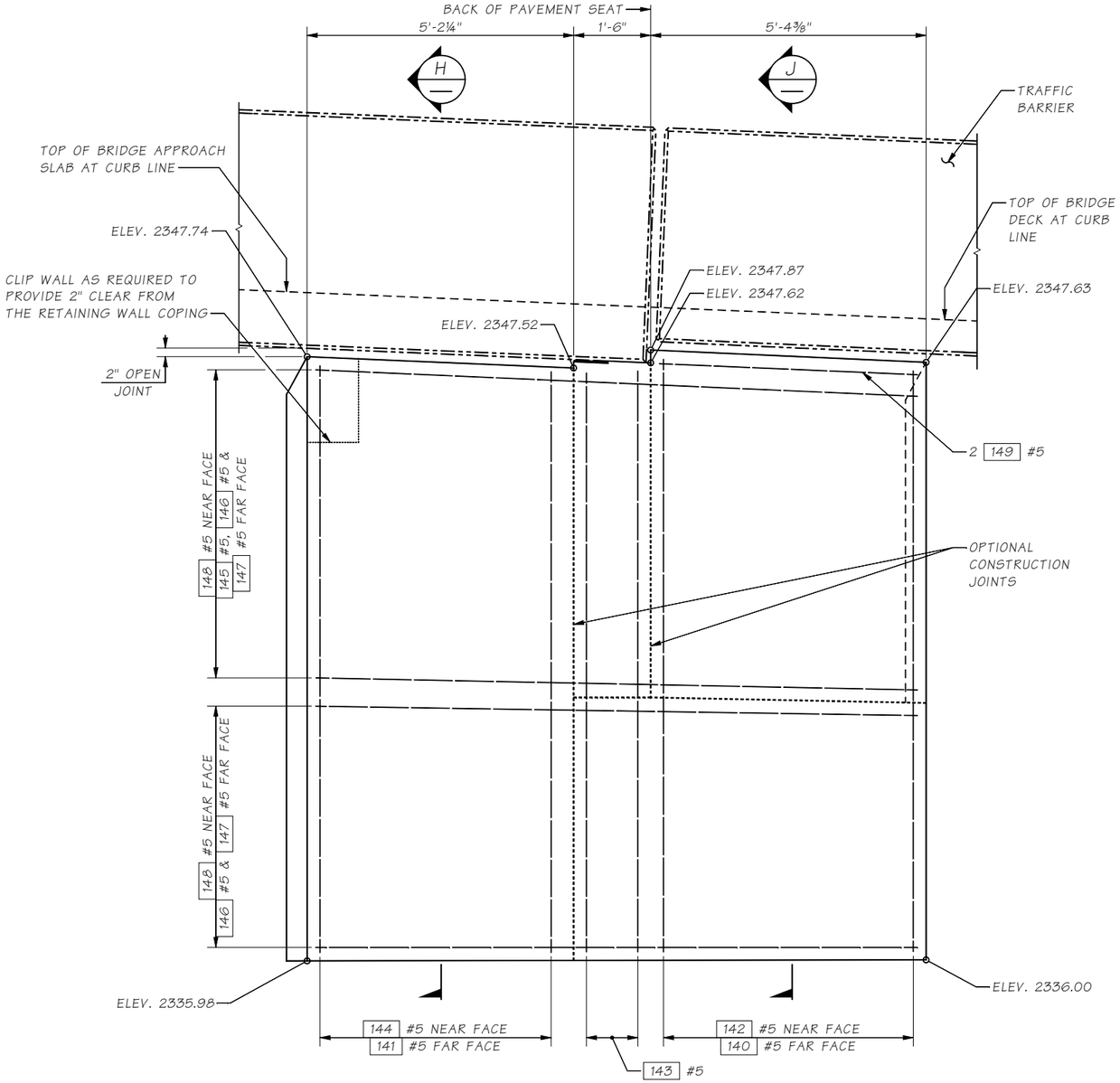
Washington State Department of Transportation

I-90
CABIN CREEK I/C TO W EASTON I/C
PHASE 3 - ADD LANES/WILDLIFE BRIDGES
I-90 WILDLIFE U-XING WB BR. NO. 90/116.7N

PIER 1 CURTAIN WALL DETAILS 1 OF 2

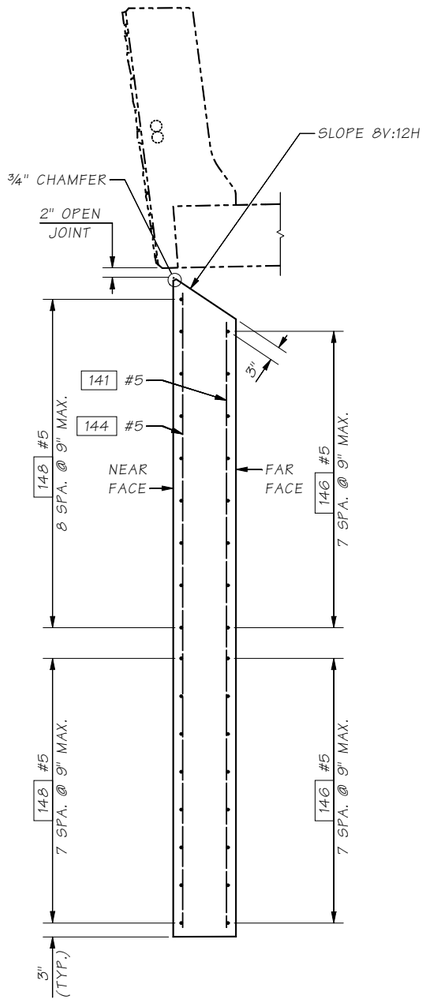
BRIDGE SHEET NO. BJ20
SHEET 1551 OF 1783 SHEETS

Mon Jan 31 16:03:36 2022

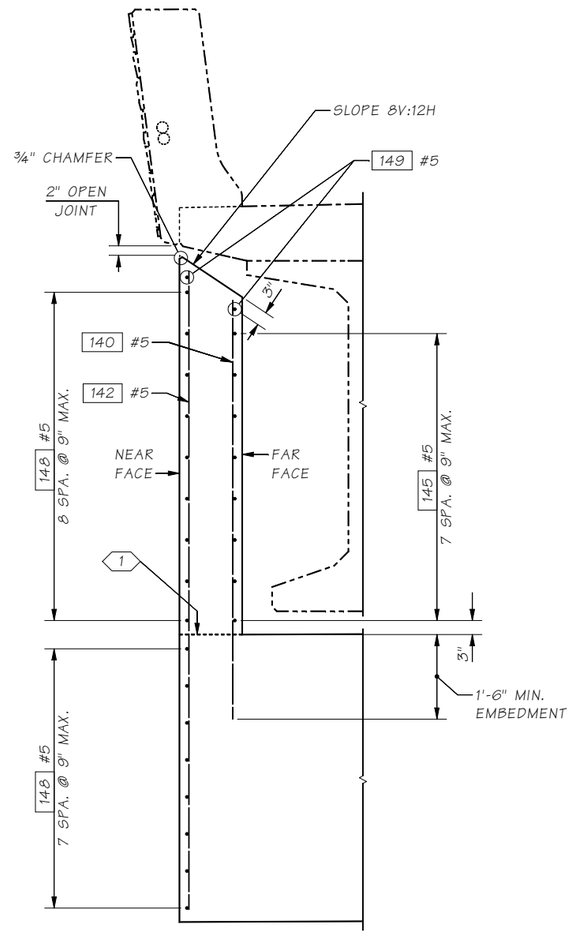


OUTSIDE ELEVATION RIGHT CURTAIN WALL

ALL ELEVATIONS ARE AT NEAR FACE OF CURTAIN WALL



SECTION H



SECTION J

NOTES:

1. CONSTRUCTION JOINT WITH ROUGHENED SURFACE

Bridge Design Engr.	Khaleghi, B	M:\X-Team\I-90_WILDLIFE U-XING WB BRIDGE_SCR\window files\PIER1CURTAINWALL2.wnd				REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor	Aldrich, BS					10	WASH.			
Designed By	Mizumori, A 06/20					JOB NUMBER 19Y007				
Checked By	Howlett, K 12/21					CONTRACT NO.				
Detailed By	Wrenn, M 06/20									
Bridge Projects Engr.										
Prelim. Plan By										
Architect/Specialist		DATE	REVISION	BY	APP'D					

P.E. STAMP BOX: ANTHONY J. I. MIZUMORI, STATE OF WASHINGTON, 44207, PROFESSIONAL ENGINEER, STRUCTURAL ENGINEER — SEE SHEET CT9 — DATE:

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX: BRIAN S. ALDRICH, STATE OF WASHINGTON, 37834, PROFESSIONAL ENGINEER, STRUCTURAL ENGINEER — SEE SHEET CT9 — DATE:

Washington State Department of Transportation

I-90
CABIN CREEK I/C TO W EASTON I/C
PHASE 3 - ADD LANES/WILDLIFE BRIDGES
I-90 WILDLIFE U-XING WB BR. NO. 90/116.7N

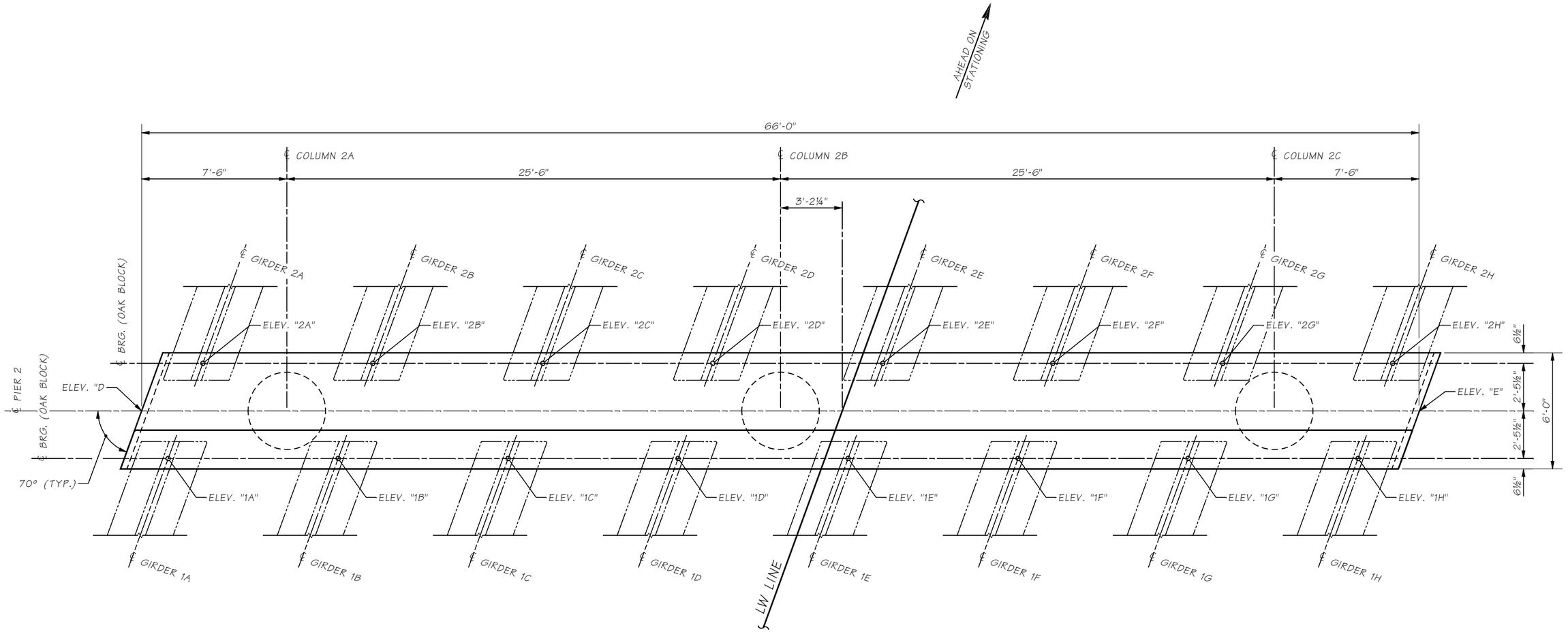
PIER 1 CURTAIN WALL DETAILS 2 OF 2

BRIDGE SHEET NO. BJ21

SHEET 1552 OF 1783 SHEETS

SR I-90 FILE NO. SHEET BJ21

Mon Jan 31 16:03:38 2022



PLAN

SHOWN AT TOP OF CROSSBEAM.
SEE "FRAMING PLAN" FOR GIRDER SPACING.

TABLE OF ELEVATIONS

TOP OF OAK BLOCK

SPAN 1	ELEVATION		SPAN 2	ELEVATION
"1A"	2334.88		"2A"	2334.66
"1B"	2334.91		"2B"	2334.69
"1C"	2334.95		"2C"	2334.72
"1D"	2334.98		"2D"	2334.75
"1E"	2335.02		"2E"	2334.79
"1F"	2335.05		"2F"	2334.82
"1G"	2335.09		"2G"	2334.87
"1H"	2335.12		"2H"	2334.93

SR I-90 FILE NO. ____ SHEET BJ22

Bridge Design Engr.	Khaleghi, B	
Supervisor	Aldrich, BS	
Designed By	Mizumori, A	06/20
Checked By	Howlett, K	12/21
Detailed By	Churchill, C	10/19
Bridge Projects Engr.		
Prelim. Plan By		
Architect/Specialist		

M:\X-Team\I-90_WILDLIFE U-XING WB BRIDGE_SCR\window files\PIER2XBEAM1.wnd

DATE	REVISION	BY	APP'D

REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
10	WASH.			
JOB NUMBER 19Y007				
CONTRACT NO.				

P.E. STAMP BOX
ANTHONY J. I. MIZUMORI — STATE OF WASHINGTON — 44307 — PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE:

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX
BRIAN S. ALDRICH — STATE OF WASHINGTON — 37834 — PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE:

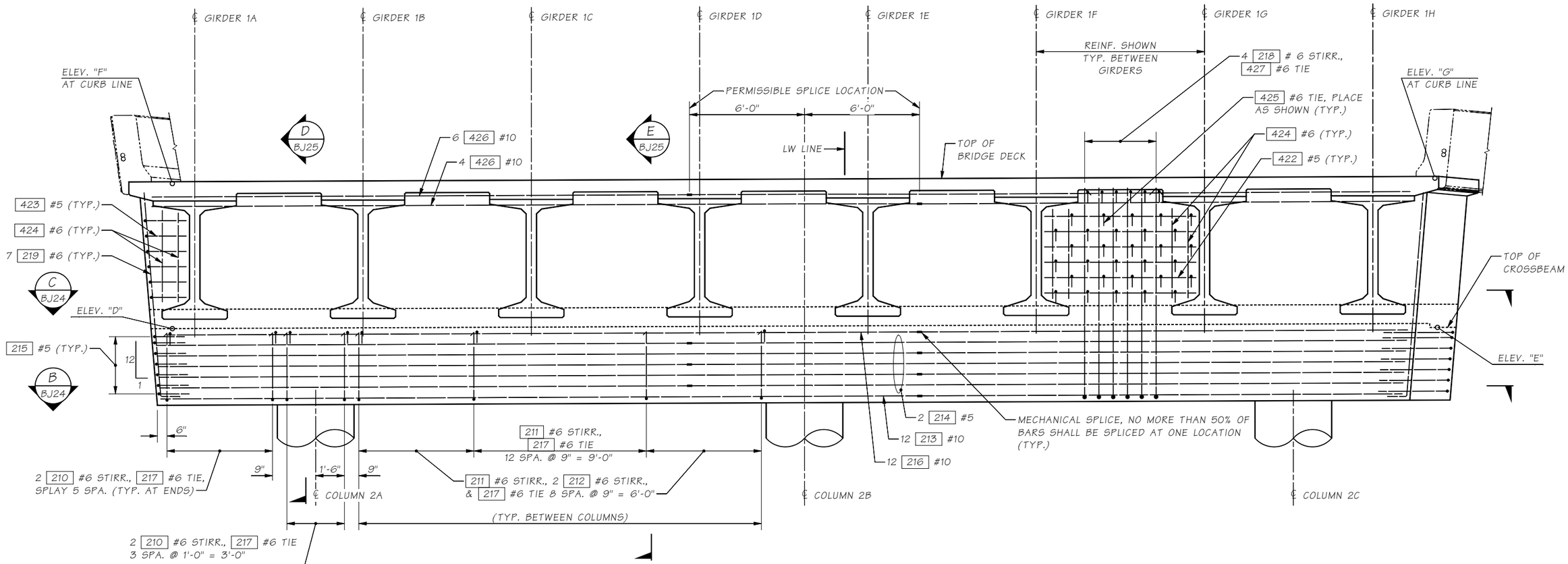
Washington State Department of Transportation

I-90
CABIN CREEK I/C TO W EASTON I/C
PHASE 3 - ADD LANES/WILDLIFE BRIDGES
I-90 WILDLIFE U-XING WB BR. NO. 90/116.7N

PIER 2 CROSSBEAM DETAILS 1 OF 4

BRIDGE SHEET NO. BJ22
SHEET 1553 OF 1783 SHEETS

Mon Jan 31 16:03:39 2022



ELEVATION

DIMENSIONS MEASURED ALONG ℄ PIER

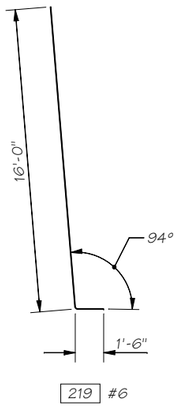


TABLE OF ELEVATIONS

ELEVATIONS AT ℄ PIER

LOCATION	ELEVATION
"D"	2334.36
"E"	2334.63
"F"	2341.93
"G"	2342.21

SR I-90 FILE NO. ____ SHEET BJ23

Bridge Design Engr.	Khaleghi, B	M:\X-Team\I-90_WILDLIFE U-XING WB BRIDGE_SCR\window files\PIER2XBEAM2.wnd
Supervisor	Aldrich, BS	
Designed By	Mizumori, A 06/20	
Checked By	Howlett, K 12/21	
Detailed By	Wrenn, M 06/20	
Bridge Projects Engr.		
Prelim. Plan By		
Architect/Specialist		

DATE	REVISION	BY	APP'D

REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
10	WASH.			
JOB NUMBER 19Y007				
CONTRACT NO.				

P.E. STAMP BOX
ANTHONY J. I. MIZUMORI, STATE OF WASHINGTON, 44357, REGISTERED PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE:

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX
BRIAN S. ALDRICH, STATE OF WASHINGTON, 37834, REGISTERED PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE:

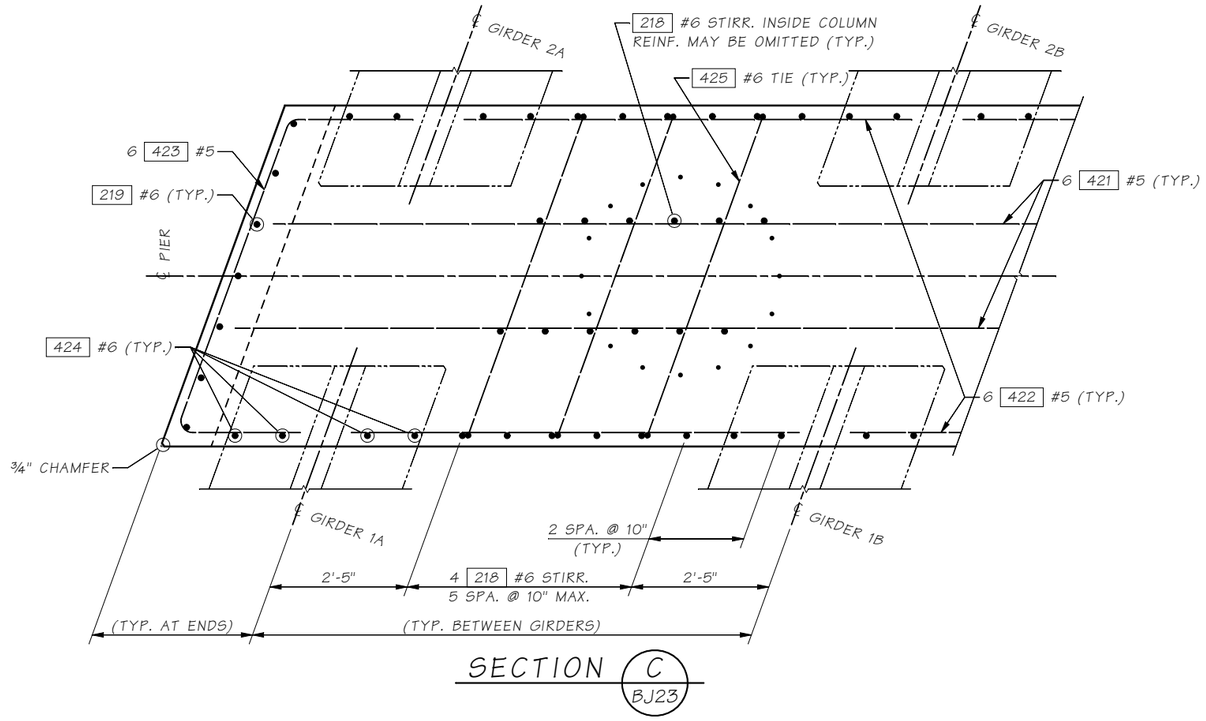
Washington State Department of Transportation

I-90
CABIN CREEK I/C TO W EASTON I/C
PHASE 3 - ADD LANES/WILDLIFE BRIDGES
I-90 WILDLIFE U-XING WB BR. NO. 90/116.7N

PIER 2 CROSSBEAM DETAILS 2 OF 4

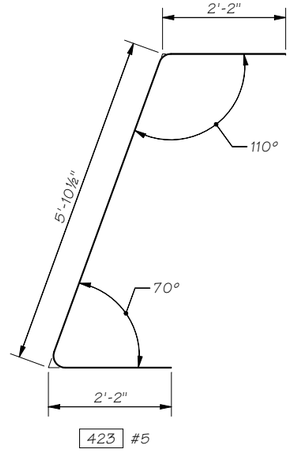
BRIDGE SHEET NO. BJ23
SHEET 1554 OF 1783 SHEETS

Mon Jan 31 16:03:41 2022

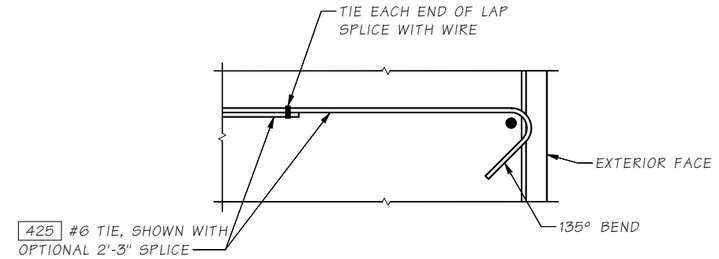


SECTION C
BJ23

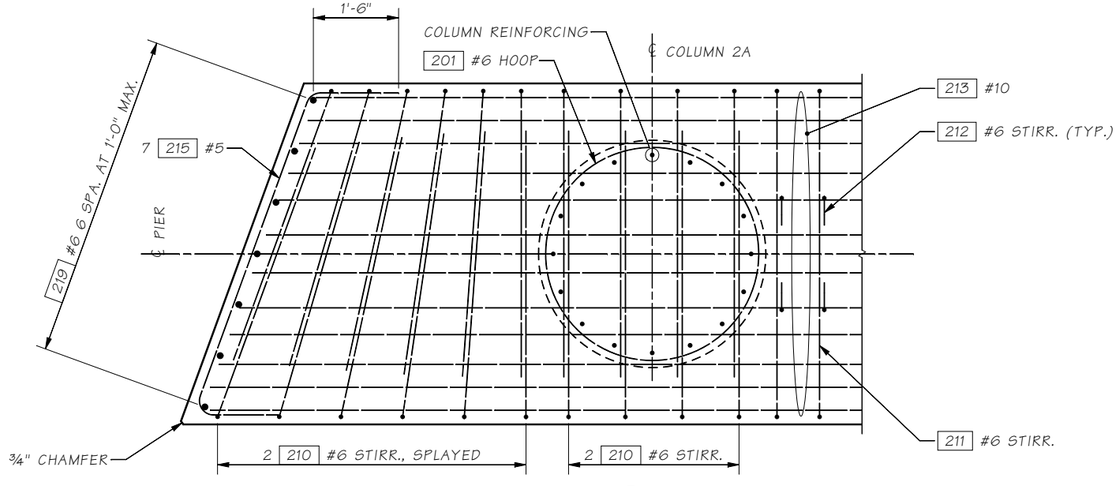
NOT ALL REINFORCEMENT SHOWN FOR CLARITY



423 #5

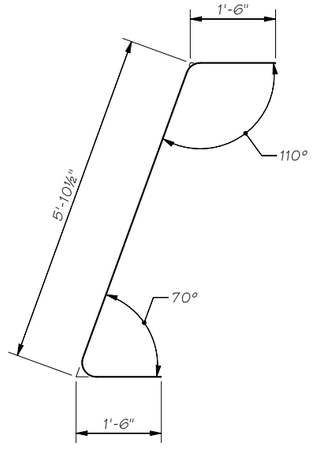


TIE BAR DETAIL



SECTION B
BJ23

NOT ALL REINFORCEMENT SHOWN FOR CLARITY



215 #5

SR I-90 FILE NO. ____ SHEET BJ24

Bridge Design Engr.	Khaleghi, B	M:\X-Team\I-90_WILDLIFE U-XING WB BRIDGE_SCR\window files\PIER2XBEAM3.wnd				REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor	Aldrich, BS					10	WASH.			
Designed By	Mizumori, A 06/20					JOB NUMBER 19Y007				
Checked By	Howlett, K 12/21					CONTRACT NO.				
Detailed By	Wrenn, M 08/20									
Bridge Projects Engr.										
Prelim. Plan By										
Architect/Specialist		DATE	REVISION	BY	APP'D					

P.E. STAMP BOX
ANTHONY J. I. MIZUMORI — STATE OF WASHINGTON — 14357 — PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE:

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX
BRIAN S. ALDRICH — STATE OF WASHINGTON — 37824 — PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE:

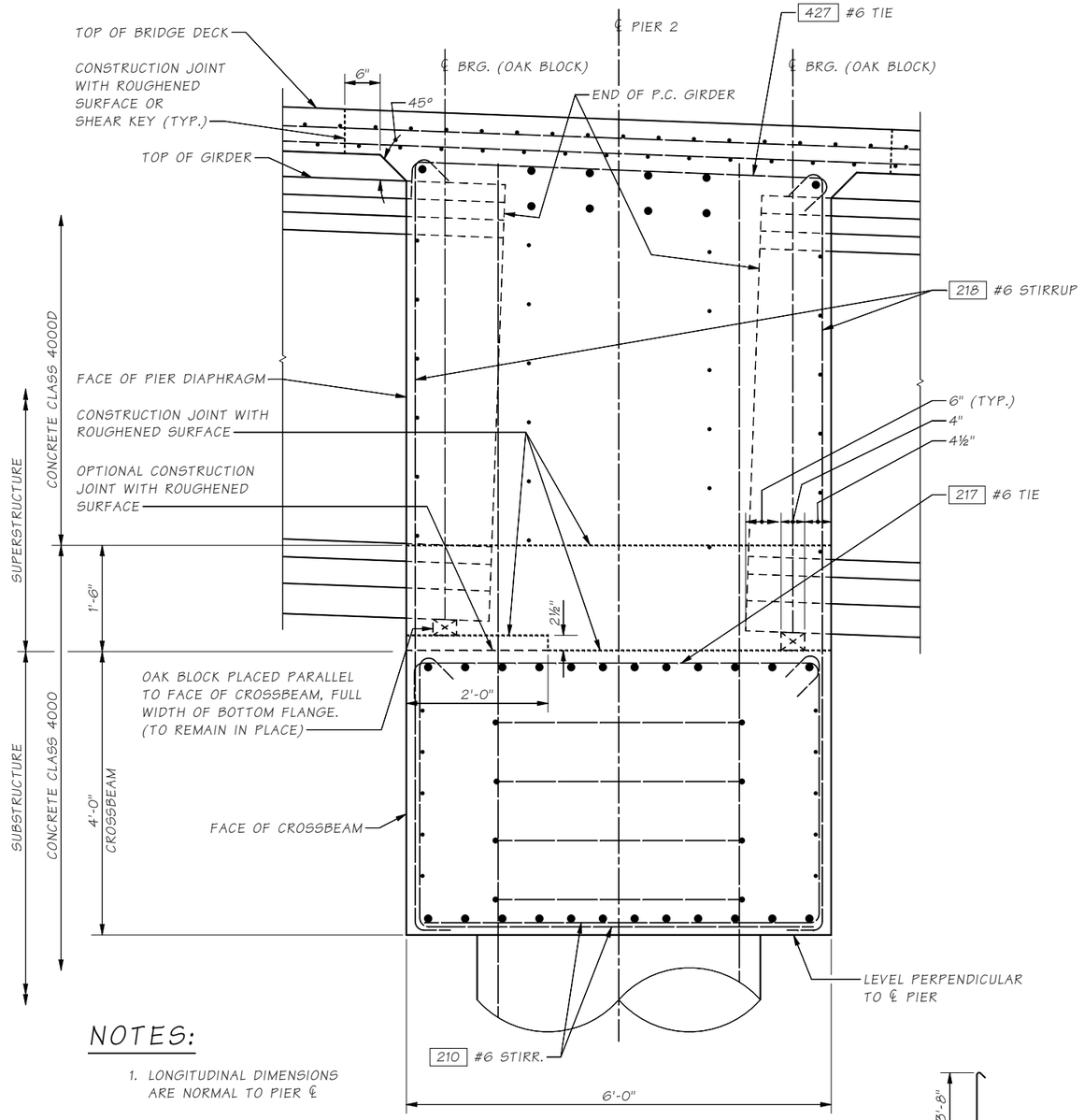
Washington State Department of Transportation

I-90
CABIN CREEK I/C TO W EASTON I/C
PHASE 3 - ADD LANES/WILDLIFE BRIDGES
I-90 WILDLIFE U-XING WB BR. NO. 90/116.7N

PIER 2 CROSSBEAM DETAILS 3 OF 4

BRIDGE SHEET NO. BJ24
SHEET 1555 OF 1783 SHEETS

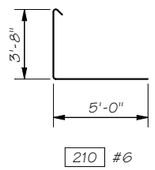
Mon Jan 31 16:03:42 2022



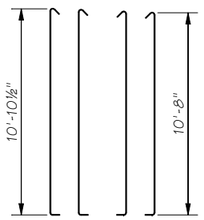
NOTES:

1. LONGITUDINAL DIMENSIONS ARE NORMAL TO PIER ℄
2. SOME REINFORCING NOT SHOWN FOR CLARITY

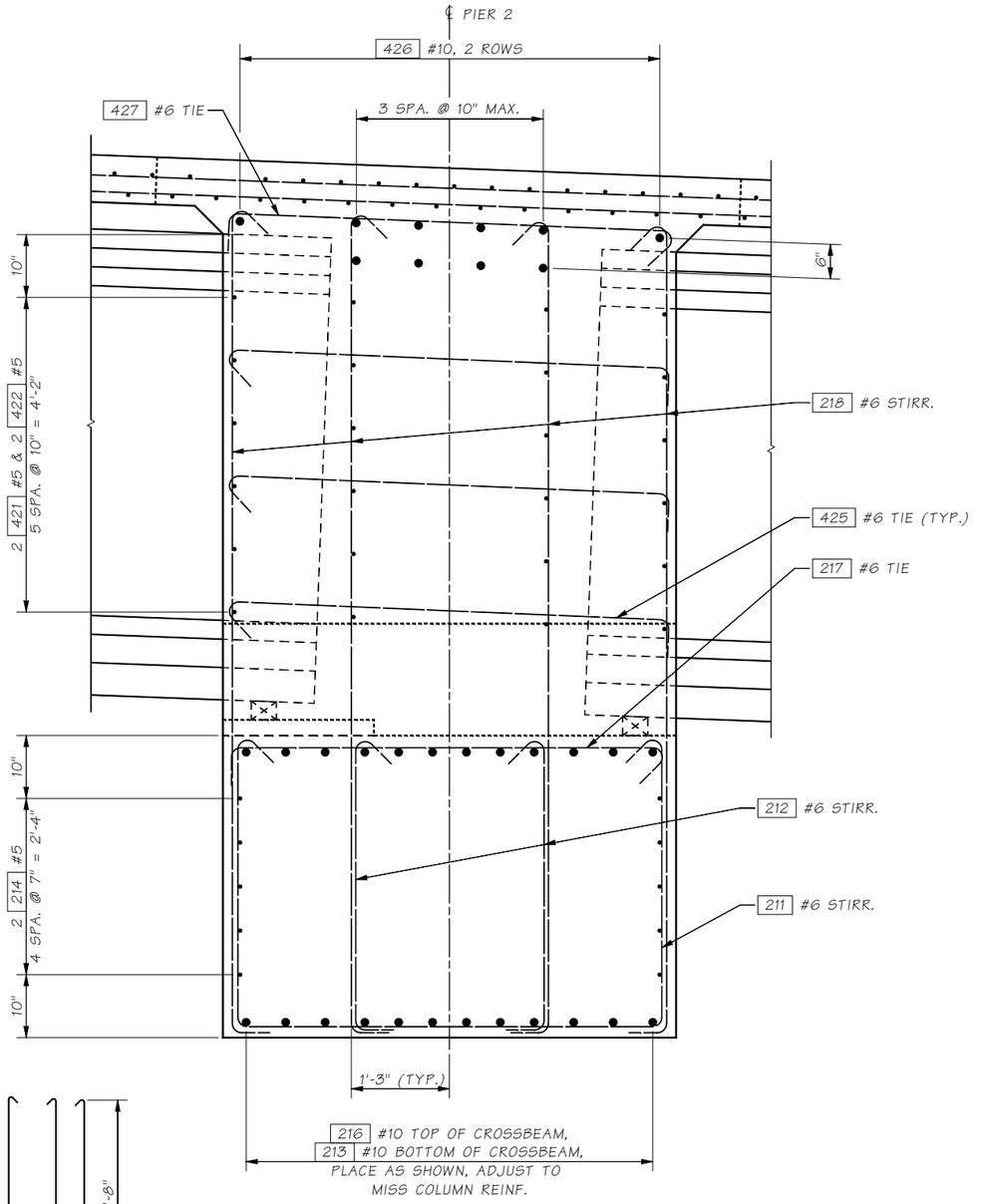
SECTION D
BJ23



210 #6



218 #6



SECTION E
BJ23

SR I-90 FILE NO. SHEET BJ25

Bridge Design Engr.	Khaleghi, B	M:\X-Team\I-90_WILDLIFE U-XING WB BRIDGE_SCR\window files\PIER2XBEAM4.wnd			REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor	Aldrich, BS				10	WASH.			
Designed By	Mizumori, A 06/20				JOB NUMBER 19Y007				
Checked By	Howlett, K 12/21				CONTRACT NO.				
Detailed By	Wrenn, M 06/20								
Bridge Projects Engr.									
Prelim. Plan By									
Architect/Specialist		DATE	REVISION	BY	APP'D				

P.E. STAMP BOX
ANTHONY J. I. MIZUMORI — STATE OF WASHINGTON — 44057 — PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE:

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX
BRIAN S. ALDRICH — STATE OF WASHINGTON — 37834 — PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE:

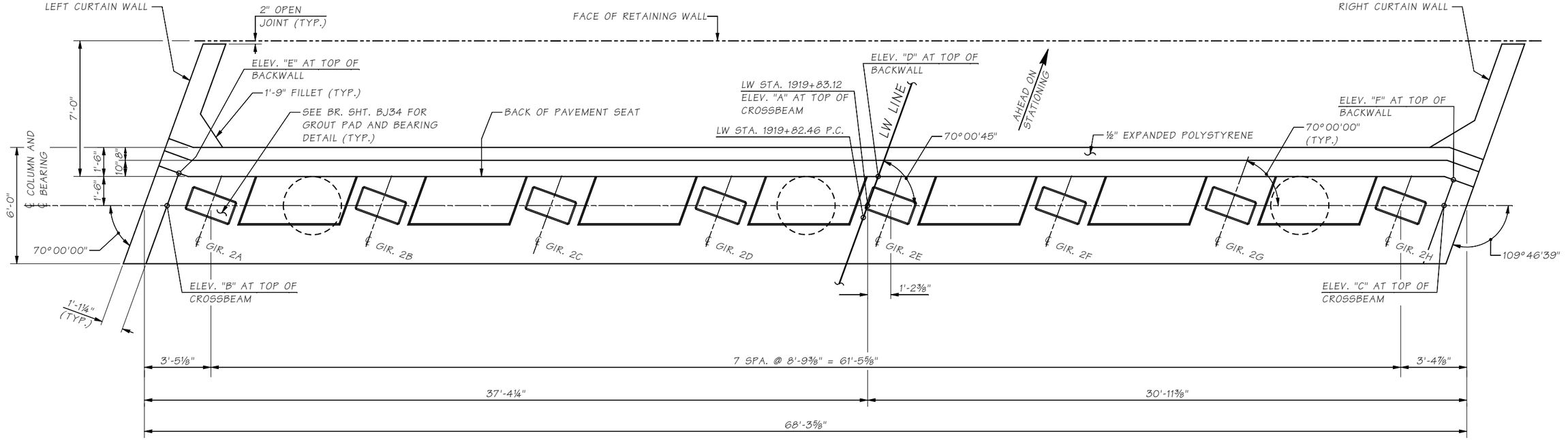
Washington State Department of Transportation

I-90
CABIN CREEK I/C TO W EASTON I/C
PHASE 3 - ADD LANES/WILDLIFE BRIDGES
I-90 WILDLIFE U-XING WB BR. NO. 90/116.7N

PIER 2 CROSSBEAM DETAILS 4 OF 4

BRIDGE SHEET NO. BJ25
SHEET 1556 OF 1783 SHEETS

Mon Jan 31 16:03:44 2022



PLAN

NOTES:

1. SEE "TABLE OF ELEVATIONS" BR. SHT. BJ27 FOR TOP OF CROSSBEAM AND TOP OF BACKWALL ELEVATIONS.
2. SEE ARCHITECTURAL TREATMENT DETAIL ON BR. SHT. BJ56

SR I-90 FILE NO. ____ SHEET B326

Bridge Design Engr.	Khaleghi, B	M:\X-Team\I-90_WILDLIFE U-XING WB BRIDGE_SCR\window files\PIER3PLAN.wnd			REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor	Aldrich, BS				10	WASH.			
Designed By	Mizumori, A 06/20				JOB NUMBER 19Y007				
Checked By	Howlett, K 12/21				CONTRACT NO.				
Detailed By	Bontemps, W 06/20								
Bridge Projects Engr.									
Prelim. Plan By									
Architect/Specialist		DATE	REVISION	BY	APP'D				

P.E. STAMP BOX — ANTHONY J. I. MIZUMORI — STATE OF WASHINGTON — 14357 — PROFESSIONAL ENGINEER — SEE SHEET CT9 — DATE:

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX — BRIAN S. ALDRICH — STATE OF WASHINGTON — 37824 — PROFESSIONAL ENGINEER — SEE SHEET CT9 — DATE:

Washington State Department of Transportation

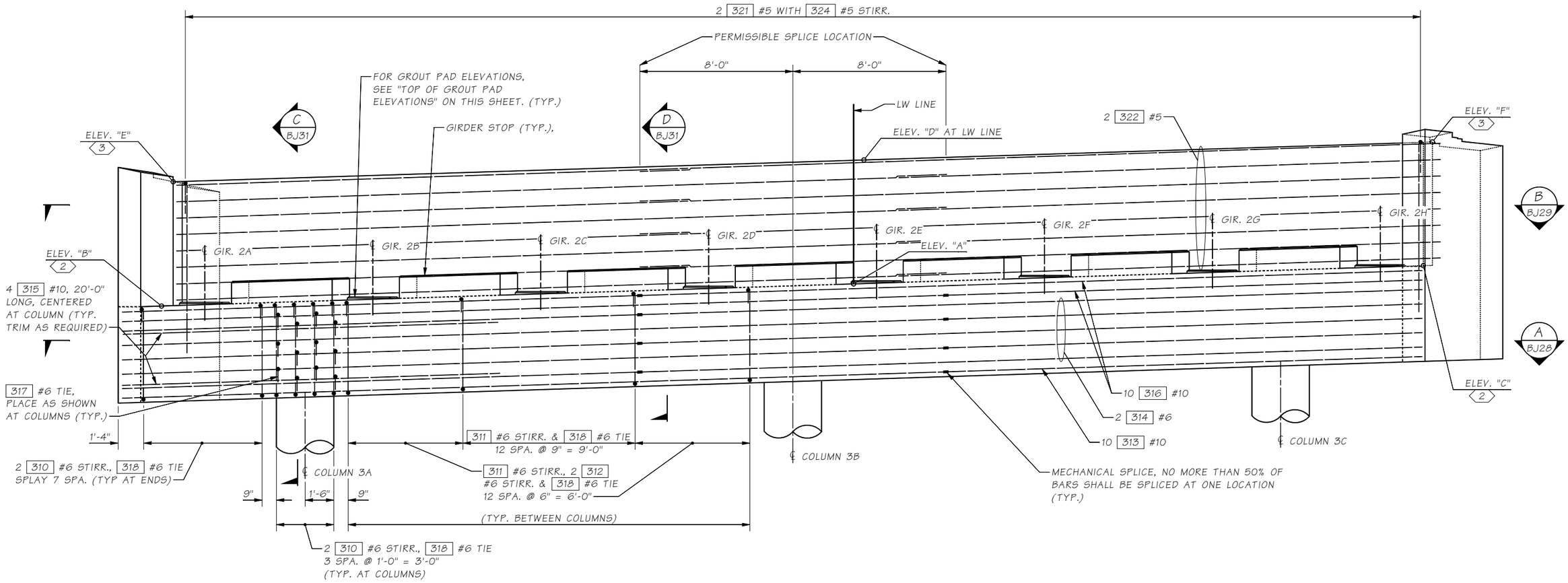
I-90
CABIN CREEK I/C TO W EASTON I/C
PHASE 3 - ADD LANES/WILDLIFE BRIDGES
I-90 WILDLIFE U-XING WB BR. NO. 90/116.7N

PIER 3 PLAN

BRIDGE SHEET NO. BJ26

SHEET 1557 OF 1783 SHEETS

Mon Jan 31 16:03:45 2022



ELEVATION

NOTES:

1. PRIOR TO GROUT PAD PLACEMENT VERIFY THAT GIRDER CAMBERS ARE WITHIN THE UPPER AND LOWER BOUND "D" DIMENSIONS AS SHOWN IN THE GIRDER SCHEDULE. OTHERWISE NOTIFY THE ENGINEER TO VERIFY REQUIRED GROUT PAD ELEVATIONS.
2. TOP OF CROSSBEAM ELEVATION TAKEN AT INSIDE FACE OF CURTAIN WALL ALONG ℄ BEARING.
3. TOP OF BACKWALL ELEVATION TAKEN AT INSIDE FACE OF CURTAIN WALL AND FRONT FACE OF BACKWALL.
4. REINFORCEMENT TO HAVE 2'-9" MIN. SPLICE WHEN REQUIRED. STAGGER SPLICES ON ADJACENT REINFORCEMENT BARS.

TABLE OF ELEVATIONS	
ELEV. "A"	2328.54
ELEV. "B"	2327.41
ELEV. "C"	2329.50
ELEV. "D"	2334.94
ELEV. "E"	2333.88
ELEV. "F"	2335.96

TOP OF GROUT PAD ELEVATIONS 1

GIRDER	2A	2B	2C	2D	2E	2F	2G	2H
ELEV.	2327.69	2327.92	2328.17	2328.43	2328.70	2328.98	2329.28	2329.58

SR I-90 FILE NO. SHEET BJ27

Bridge Design Engr.	Khaleghi, B	
Supervisor	Aldrich, BS	
Designed By	Mizumori, A	06/20
Checked By	Howlett, K	12/21
Detailed By	Wrenn, M	06/20
Bridge Projects Engr.		
Prelim. Plan By		
Architect/Specialist		

M:\X-Team\I-90_WILDLIFE U-XING WB BRIDGE_SCR\window files\PIER3ELEV.wnd

DATE	REVISION	BY	APP'D

REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
10	WASH.			
JOB NUMBER 19Y007				
CONTRACT NO.				

P.E. STAMP BOX — ANTHONY J. I. MIZUMORI — STATE OF WASHINGTON — 44357 — REGISTERED PROFESSIONAL ENGINEER — SEE SHEET CT9 — DATE:

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX — BRIAN S. ALDRICH — STATE OF WASHINGTON — 37834 — REGISTERED PROFESSIONAL ENGINEER — SEE SHEET CT9 — DATE:

Washington State Department of Transportation

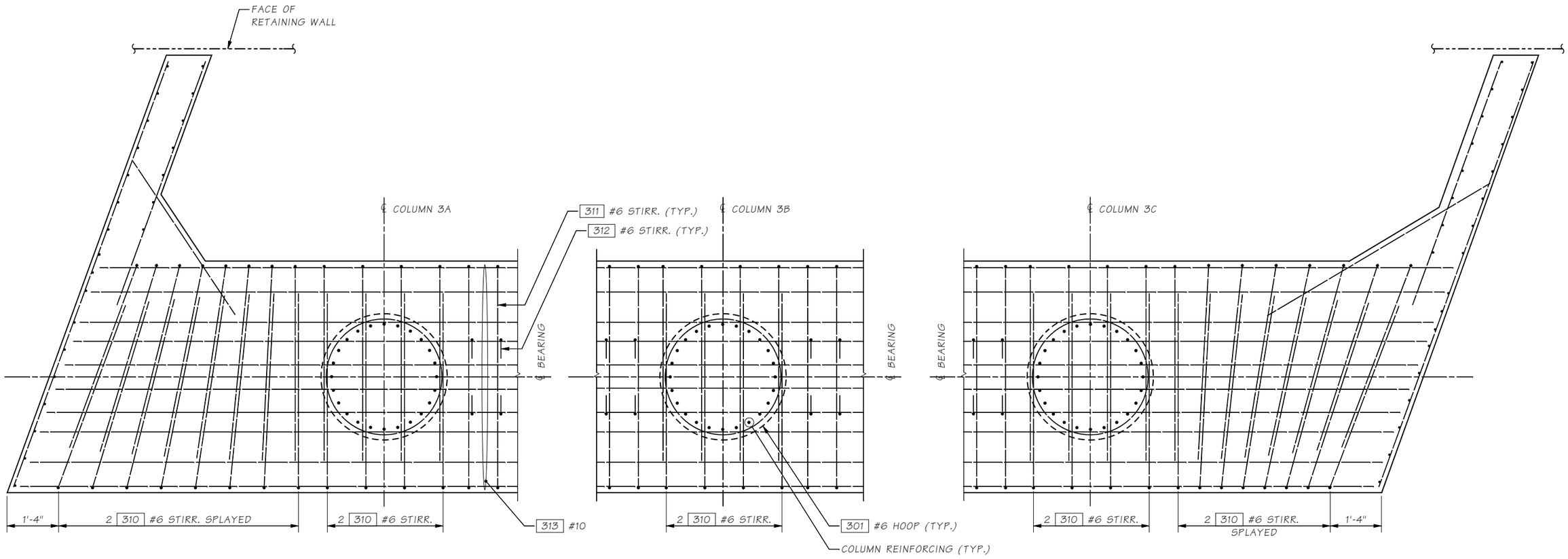
I-90
CABIN CREEK I/C TO W EASTON I/C
PHASE 3 - ADD LANES/WILDLIFE BRIDGES
I-90 WILDLIFE U-XING WB BR. NO. 90/116.7N

PIER 3 ELEVATION

BRIDGE SHEET NO. BJ27

SHEET 1558 OF 1783 SHEETS

Mon Jan 31 16:03:46 2022



SECTION A
BJ27

SR I-90 FILE NO. ____ SHEET BJ28

Bridge Design Engr.	Khaleghi, B	M:\X-Team\I-90_WILDLIFE U-XING WB BRIDGE_SCR\window files\PIER3X-BEAMDTLS1.wnd				REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor	Aldrich, BS					10	WASH.			
Designed By	Mizumori, A 06/20					JOB NUMBER 19Y007				
Checked By	Howlett, K 12/21					CONTRACT NO.				
Detailed By	Wrenn, M 06/20									
Bridge Projects Engr.										
Prelim. Plan By										
Architect/Specialist		DATE	REVISION	BY	APP'D					

P.E. STAMP BOX
ANTHONY J. I. MIZUMORI
STATE OF WASHINGTON
14357
PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE:

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX
BRIAN S. ALDRICH
STATE OF WASHINGTON
37934
PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE:

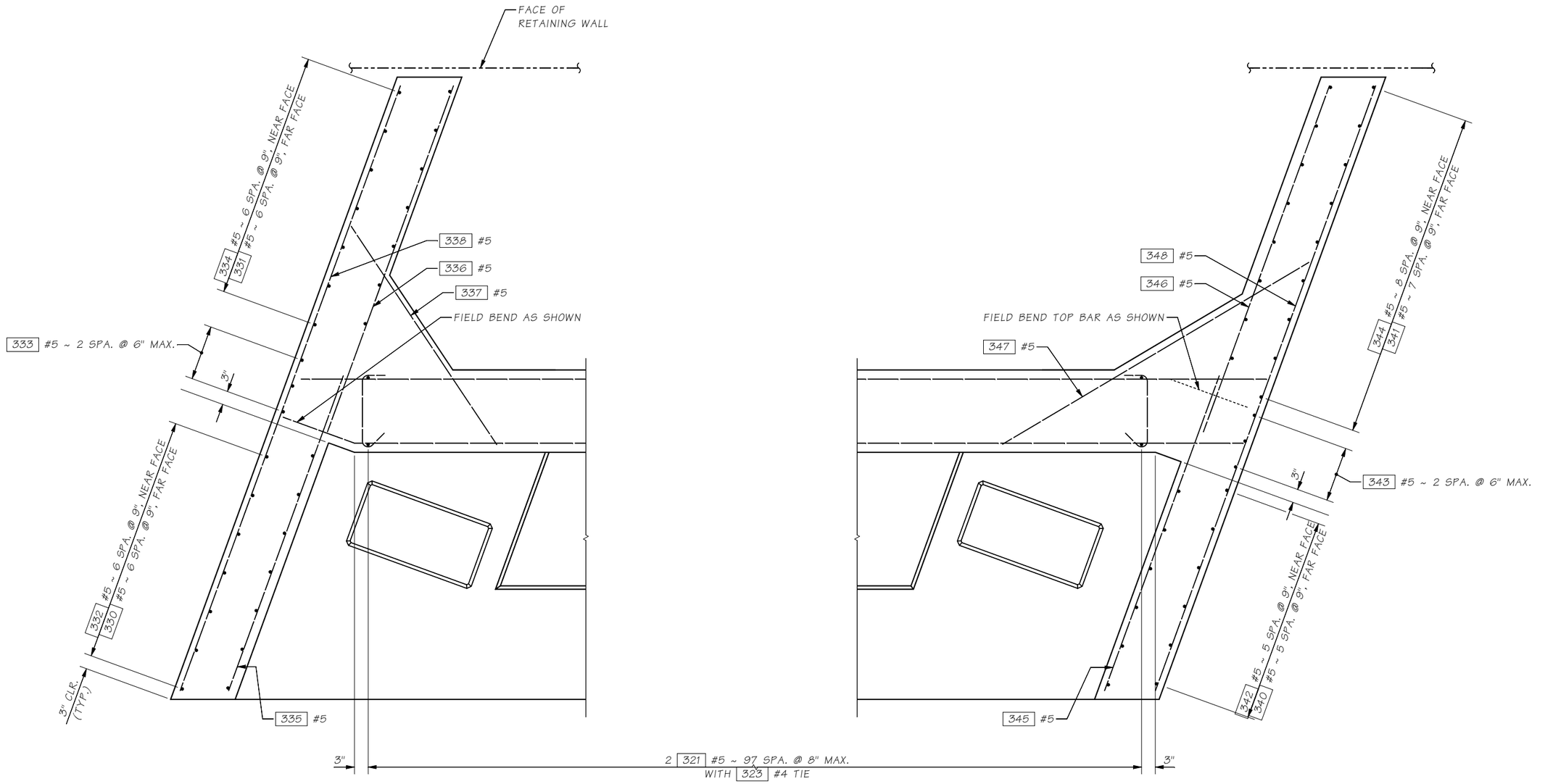
Washington State Department of Transportation

I-90
CABIN CREEK I/C TO W EASTON I/C
PHASE 3 - ADD LANES/WILDLIFE BRIDGES
I-90 WILDLIFE U-XING WB BR. NO. 90/116.7N

PIER 3 CROSSBEAM
DETAILS 1 OF 4

BRIDGE SHEET NO. BJ28
SHEET 1559 OF 1783 SHEETS

Mon Jan 31 16:03:47 2022



SECTION B
BJ27

SR I-90 FILE NO. ____ SHEET BJ29

Bridge Design Engr.	Khaleghi, B	M:\X-Team\I-90_WILDLIFE U-XING WB BRIDGE_SCR\window files\PIER3X-BEAMDTLS2.wnd				REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor	Aldrich, BS					10	WASH.			
Designed By	Mizumori, A 06/20					JOB NUMBER 19Y007				
Checked By	Howlett, K 12/21					CONTRACT NO.				
Detailed By	Wrenn, M 06/20									
Bridge Projects Engr.										
Prelim. Plan By										
Architect/Specialist		DATE	REVISION	BY	APP'D					

P.E. STAMP BOX
ANTHONY J. I. MIZUMORI
STATE OF WASHINGTON
44357
PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE:

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX
BRIAN S. ALDRICH
STATE OF WASHINGTON
37834
PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE:

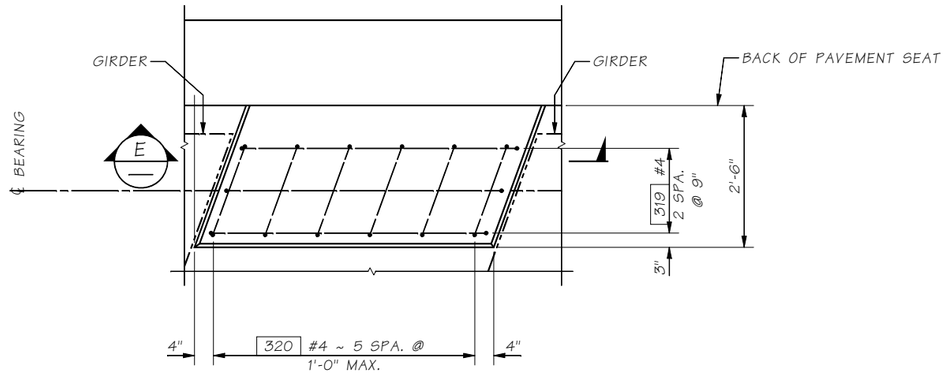
Washington State
Department of Transportation

I-90
CABIN CREEK I/C TO W EASTON I/C
PHASE 3 - ADD LANES/WILDLIFE BRIDGES
I-90 WILDLIFE U-XING WB BR. NO. 90/116.7N

PIER 3 CROSSBEAM
DETAILS 2 OF 4

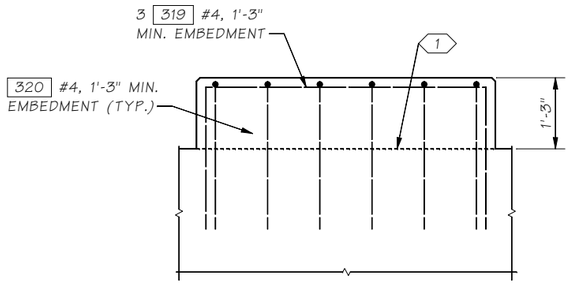
BRIDGE SHEET NO. BJ29
SHEET 1560 OF 1783 SHEETS

Mon Jan 31 16:03:49 2022



GIRDER STOP DETAIL

SEE BR. SHT. BJ34
FOR ADDITIONAL INFORMATION.



SECTION E

NOTES:

1. CONSTRUCTION JOINT WITH ROUGHENED SURFACE.

SR I-90 FILE NO. ____ SHEET BJ30

Bridge Design Engr.	Khaleghi, B	M:\X-Team\I-90_WILDLIFE U-XING WB BRIDGE_SCR\window files\PIER3X-BEAMDTLS3.wnd				REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor	Aldrich, BS					10	WASH.			
Designed By	Mizumori, A 06/20					JOB NUMBER 19Y007				
Checked By	Howlett, K 12/21					CONTRACT NO.				
Detailed By	Bontemps, W 09/20									
Bridge Projects Engr.										
Prelim. Plan By										
Architect/Specialist		DATE	REVISION	BY	APP'D					

P.E. STAMP BOX
ANTHONY J. I. MIZUMORI — STATE OF WASHINGTON — 24357 — PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE:

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX
BRIAN S. ALDRICH — STATE OF WASHINGTON — 37824 — PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE:

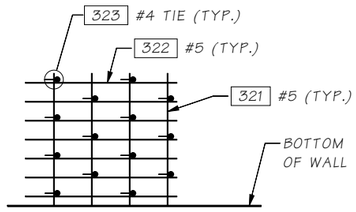
Washington State Department of Transportation

I-90
CABIN CREEK I/C TO W EASTON I/C
PHASE 3 - ADD LANES/WILDLIFE BRIDGES
I-90 WILDLIFE U-XING WB BR. NO. 90/116.7N

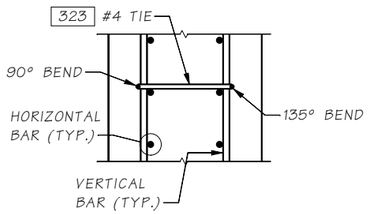
PIER 3 CROSSBEAM DETAILS 3 OF 4

BRIDGE SHEET NO. BJ30
SHEET 1561 OF 1783 SHEETS

Mon Jan 31 16:03:50 2022

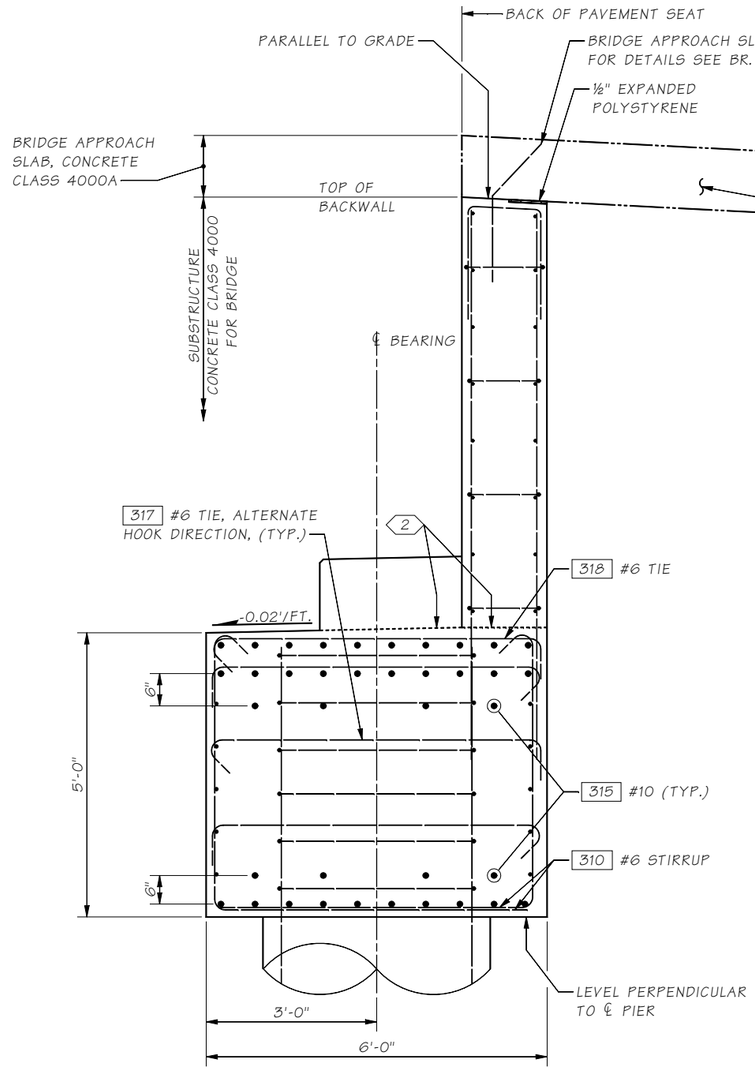


TIE BAR SPACING DETAIL



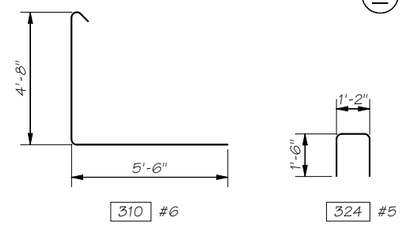
TIE BAR DETAIL

CONSTANT WIDTH SECTION
ALTERNATE 135° BEND EVERY OTHER TIE.

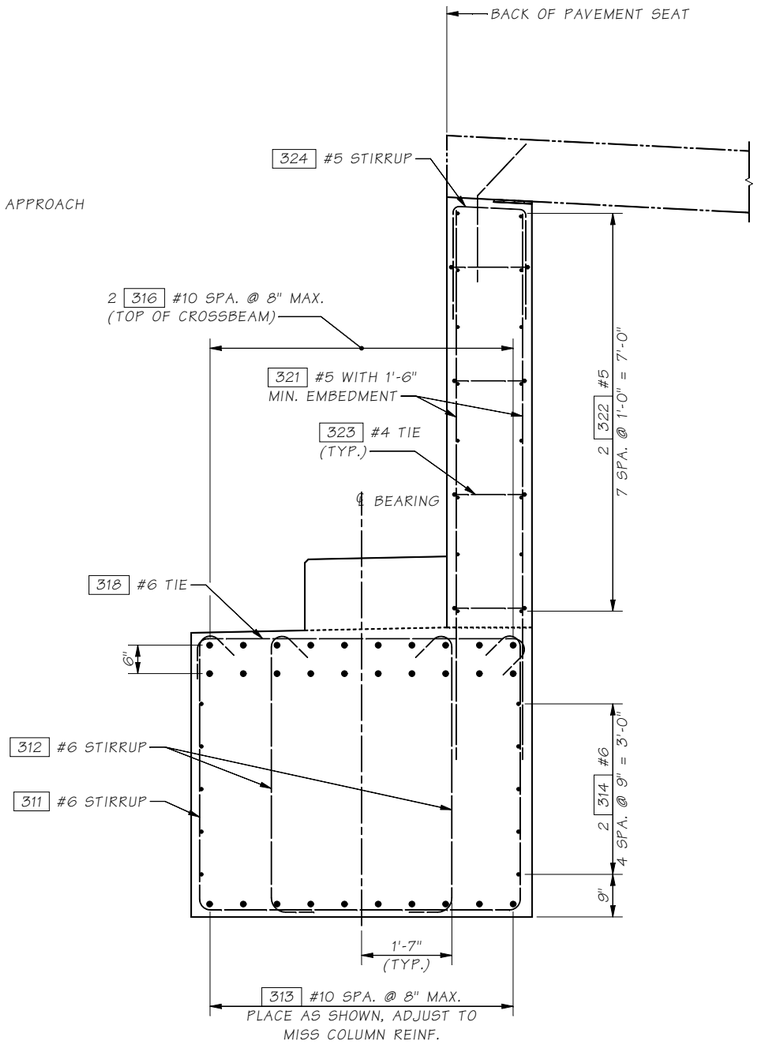


SECTION C

FOR DETAILS NOT SHOWN SEE SECTION D — BJ27



310 #6 — 324 #5



SECTION D

FOR DETAILS NOT SHOWN SEE SECTION C — BJ27

NOTES:

1. LONGITUDINAL DIMENSIONS ARE NORMAL TO SKEW.
2. CONSTRUCTION JOINT WITH ROUGHENED SURFACE.

SR I-90 FILE NO. SHEET BJ31

Bridge Design Engr.	Khaleghi, B	M:\X-Team\I-90_WILDLIFE U-XING WB BRIDGE_SCR\window files\PIER3X-BEAMDTLS4.wnd			REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor	Aldrich, BS				10	WASH.			
Designed By	Mizumori, A 06/20				JOB NUMBER 19Y007				
Checked By	Howlett, K 12/21				CONTRACT NO.				
Detailed By	Wrenn, M 06/20								
Bridge Projects Engr.									
Prelim. Plan By									
Architect/Specialist		DATE	REVISION	BY	APP'D				

P.E. STAMP BOX — ANTHONY J. I. MIZUMORI — STATE OF WASHINGTON — 44257 — REGISTERED PROFESSIONAL ENGINEER — SEE SHEET CT9 — DATE:

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX — BRIAN S. ALDRICH — STATE OF WASHINGTON — 37834 — REGISTERED PROFESSIONAL ENGINEER — SEE SHEET CT9 — DATE:

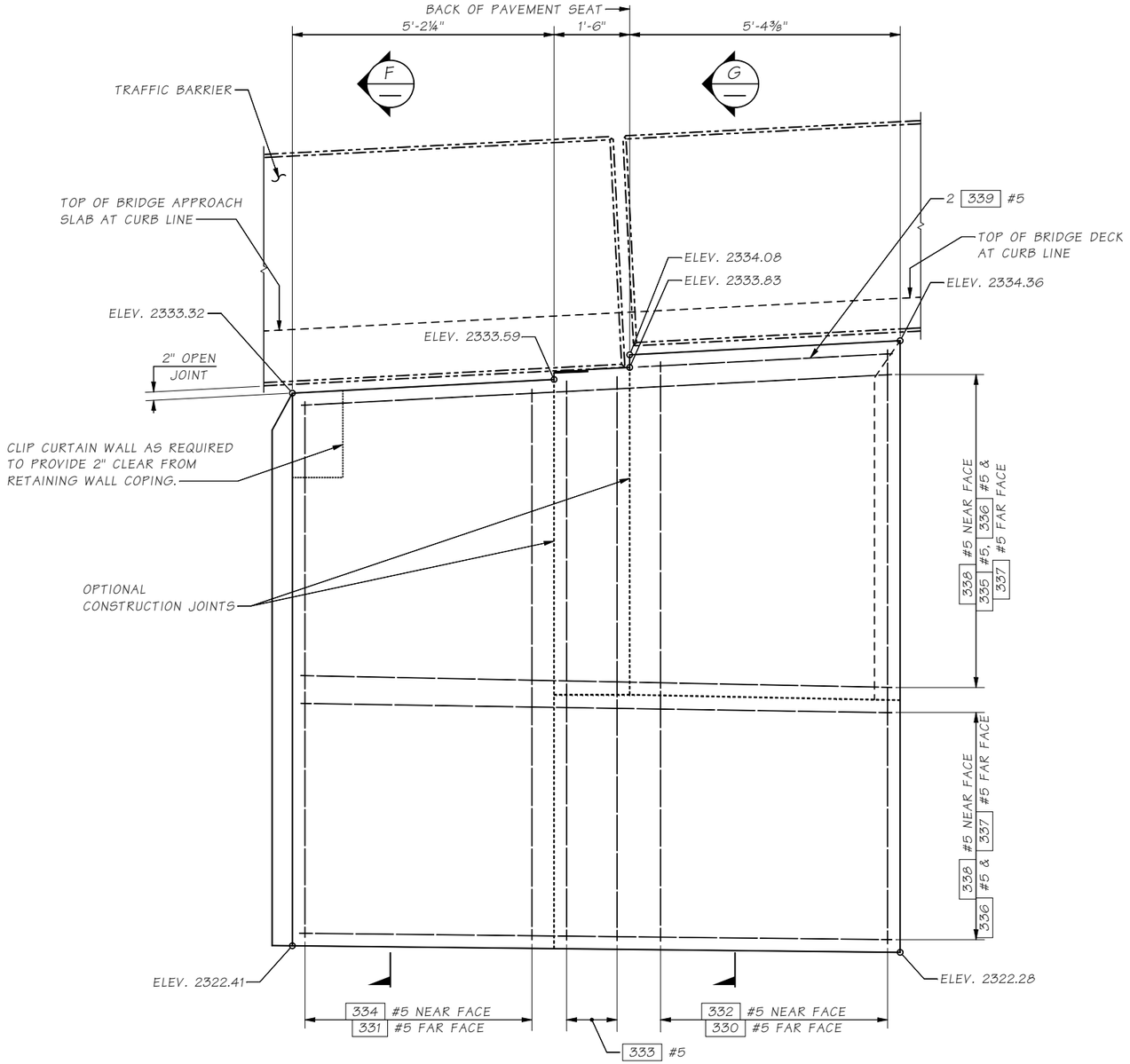
Washington State Department of Transportation

I-90
CABIN CREEK I/C TO W EASTON I/C
PHASE 3 - ADD LANES/WILDLIFE BRIDGES
I-90 WILDLIFE U-XING WB BR. NO. 90/116.7N

PIER 3 CROSSBEAM DETAILS 4 OF 4

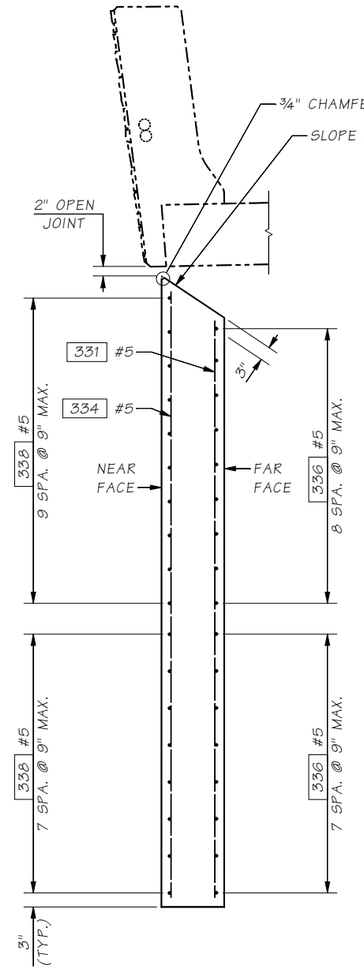
BRIDGE SHEET NO. BJ31
SHEET 1562 OF 1783 SHEETS

Mon Jan 31 16:03:51 2022

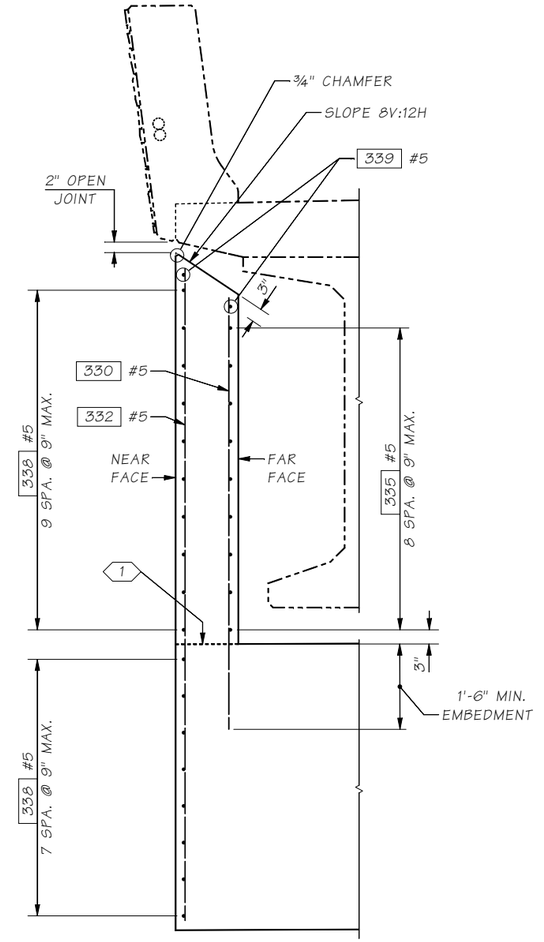


OUTSIDE ELEVATION
LEFT CURTAIN WALL

ALL ELEVATIONS ARE AT NEAR FACE OF CURTAIN WALL



SECTION F



SECTION G

NOTES:

1. CONSTRUCTION JOINT WITH ROUGHENED SURFACE

SR I-90 FILE NO. SHEET BJ32

Bridge Design Engr.	Khaleghi, B	M:\X-Team\I-90_WILDLIFE U-XING WB BRIDGE_SCR\window files\PIER3CURTAINWALL.wnd				REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor	Aldrich, BS					10	WASH.			
Designed By	Mizumori, A 06/20					JOB NUMBER 19Y007				
Checked By	Howlett, K 12/21					CONTRACT NO.				
Detailed By	Wrenn, M 06/20									
Bridge Projects Engr.										
Prelim. Plan By										
Architect/Specialist		DATE	REVISION	BY	APP'D					

Mon Jan 31 16:03:52 2022

P.E. STAMP BOX
ANTHONY J. I. MIZUMORI — STATE OF WASHINGTON — 44857 — PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE:

BRIDGE AND STRUCTURES OFFICE

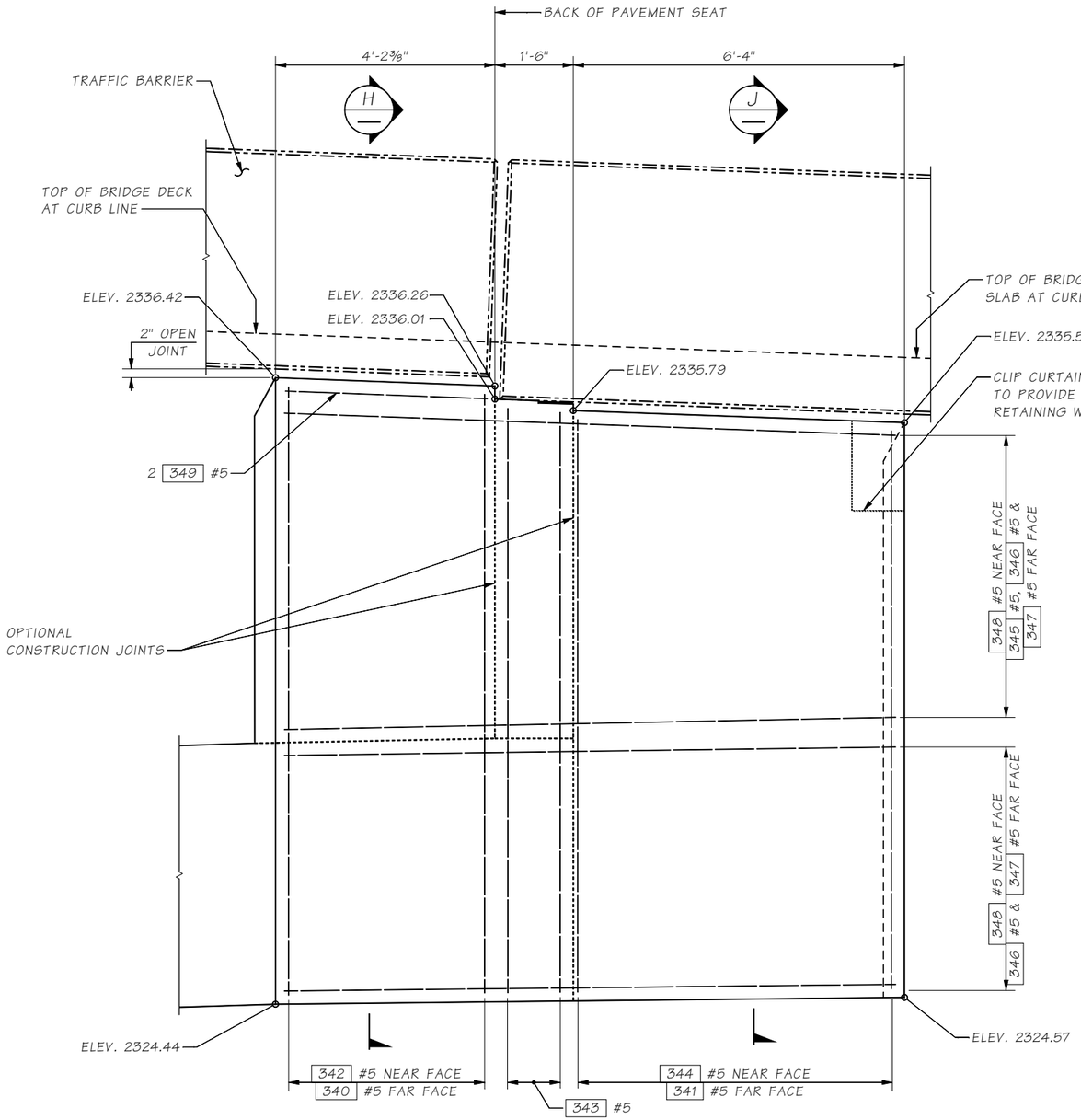
P.E. STAMP BOX
BRIAN S. ALDRICH — STATE OF WASHINGTON — 37834 — PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE:

Washington State Department of Transportation

I-90
CABIN CREEK I/C TO W EASTON I/C
PHASE 3 - ADD LANES/WILDLIFE BRIDGES
I-90 WILDLIFE U-XING WB BR. NO. 90/116.7N

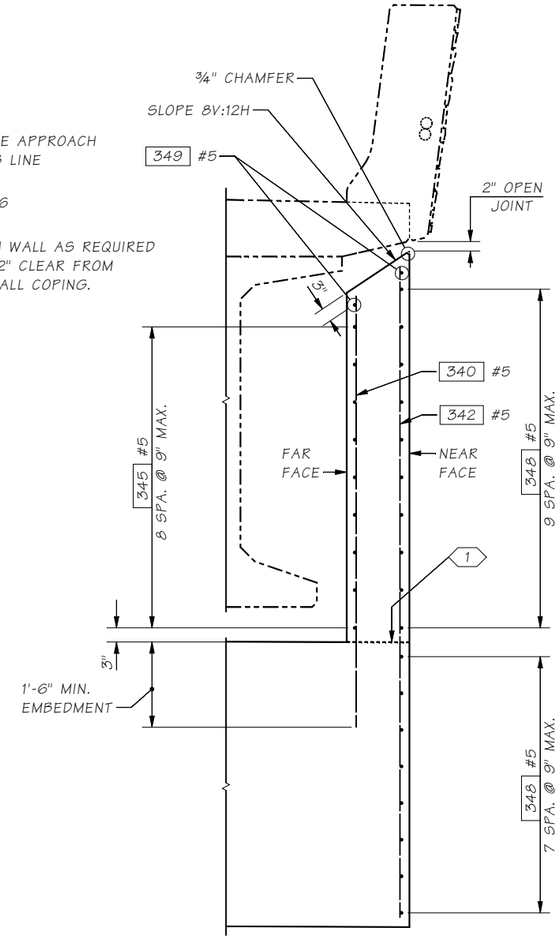
PIER 3 CURTAIN WALL DETAILS 1 OF 2

BRIDGE SHEET NO. BJ32
SHEET 1563 OF 1783 SHEETS

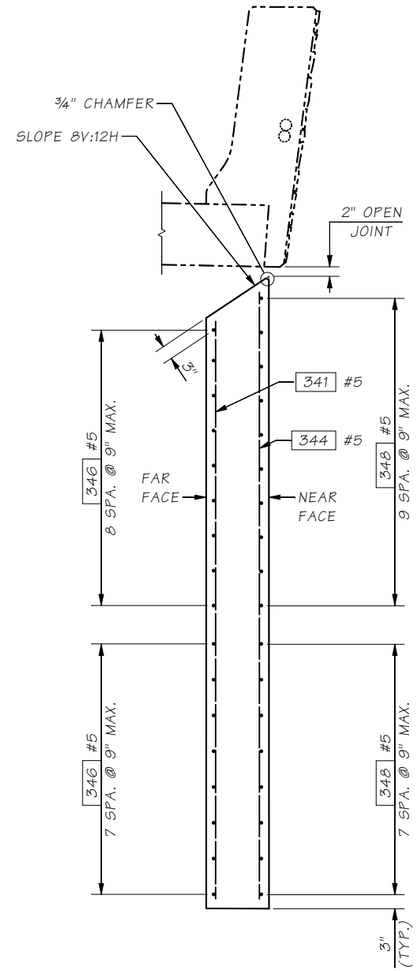


OUTSIDE ELEVATION RIGHT CURTAIN WALL

ALL ELEVATIONS ARE AT NEAR FACE OF CURTAIN WALL



SECTION H



SECTION J

NOTES:

1. CONSTRUCTION JOINT WITH ROUGHENED SURFACE

Bridge Design Engr.	Khaleghi, B	M:\X-Team\I-90_WILDLIFE U-XING WB BRIDGE_SCR\window files\PIER3CURTAINWALL2.wnd				REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor	Aldrich, BS					10	WASH.			
Designed By	Mizumori, A 06/20					JOB NUMBER 19Y007				
Checked By	Howlett, K 12/21					CONTRACT NO.				
Bridge Projects Engr.										
Prelim. Plan By										
Architect/Specialist		DATE	REVISION	BY	APP'D					

P.E. STAMP BOX — ANTHONY J. I. MIZUMORI — STATE OF WASHINGTON — 44857 — PROFESSIONAL ENGINEER — SEE SHEET CT9 — DATE:

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX — BRIAN S. ALDRICH — STATE OF WASHINGTON — 37834 — PROFESSIONAL ENGINEER — SEE SHEET CT9 — DATE:

Washington State Department of Transportation

I-90
CABIN CREEK I/C TO W EASTON I/C
PHASE 3 - ADD LANES/WILDLIFE BRIDGES
I-90 WILDLIFE U-XING WB BR. NO. 90/116.7N

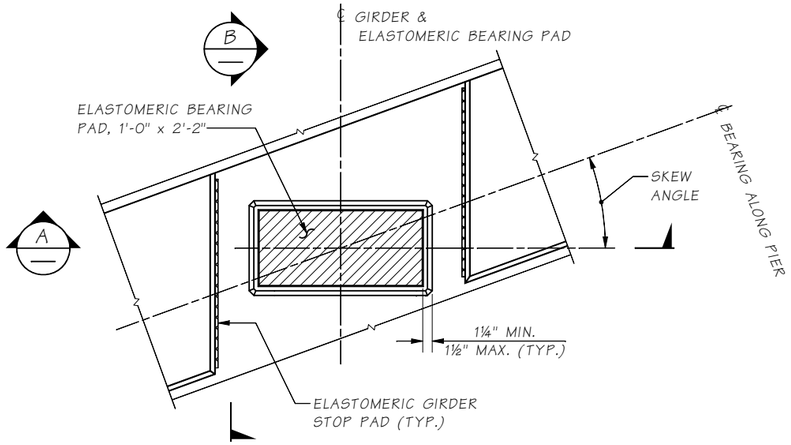
PIER 3 CURTAIN WALL DETAILS 2 OF 2

BRIDGE SHEET NO. BJ33

SHEET 1564 OF 1783 SHEETS

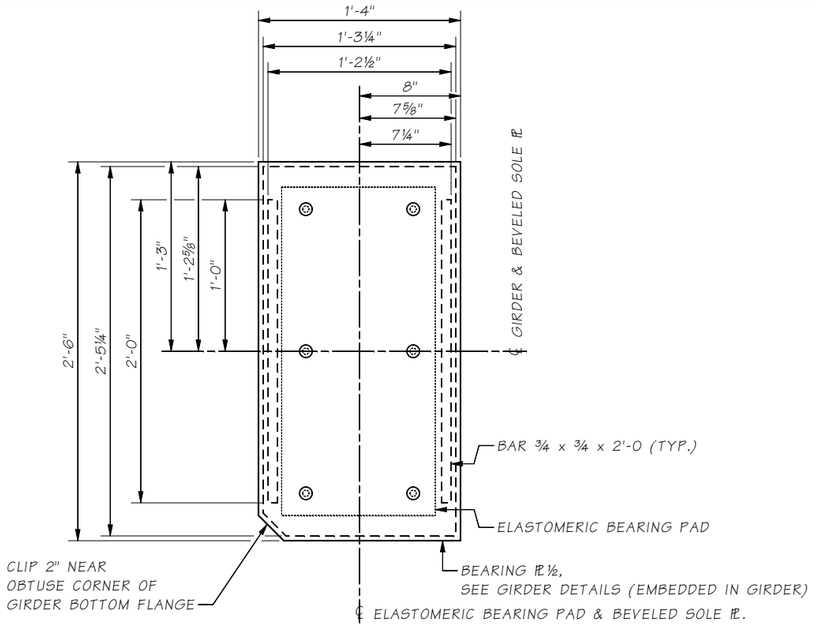
SR I-90 FILE NO. ____ SHEET BJ33

Mon Jan 31 16:03:53 2022



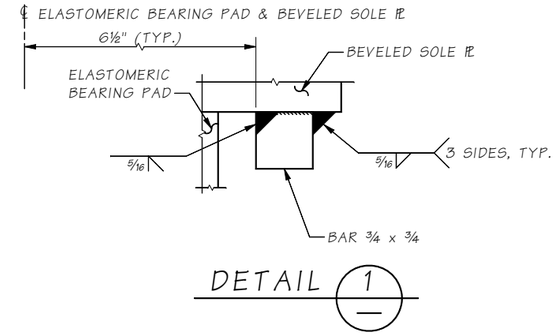
ELASTOMERIC BEARING PAD & GROUT PAD DETAIL

GIRDER NOT SHOWN FOR CLARITY



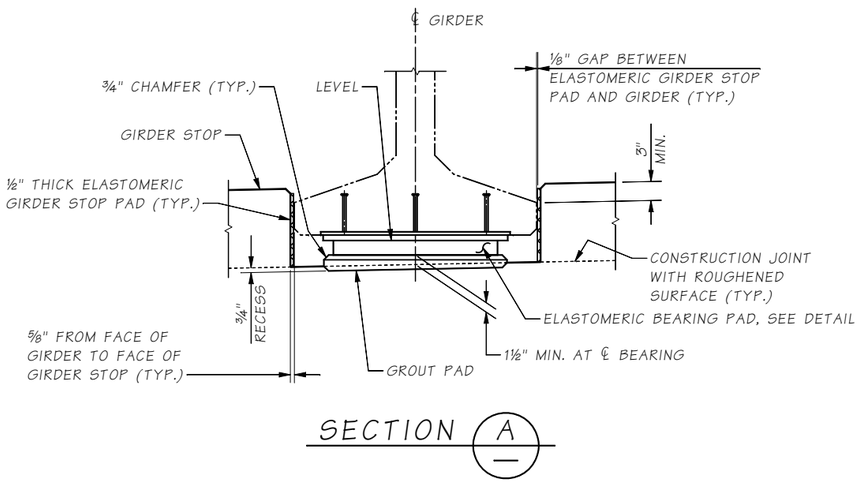
PLAN
BEVELED SOLE PLATE DETAIL

HOT DIP GALVANIZED

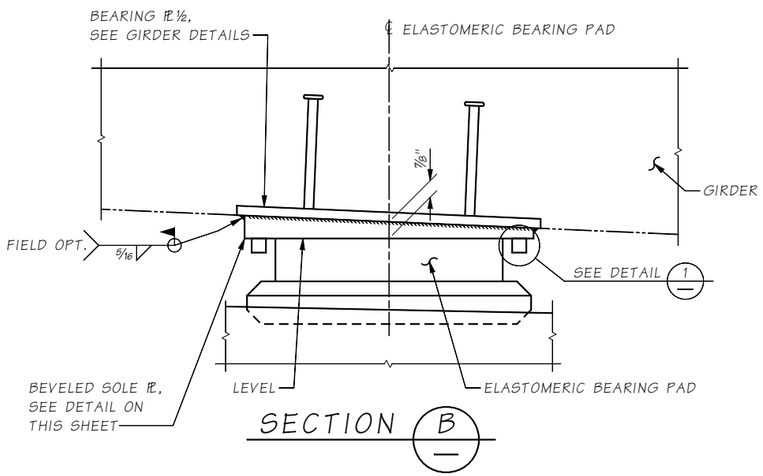


ELASTOMERIC BEARING PAD

LAMINATED ELASTOMERIC BEARING PAD (4 SHIMS).

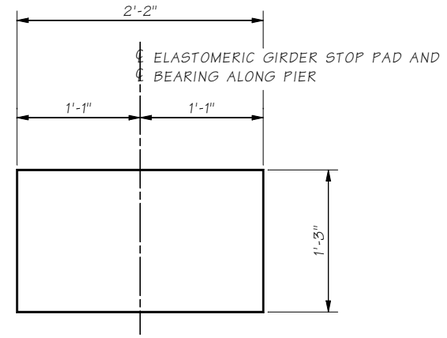


SECTION A



SECTION B

ALL WELDING IN ACCORDANCE WITH AWS D1.1.
AFTER WELDING, PAINT EXPOSED METAL WITH
TWO COATS OF GALVANIZING REPAIR PAINT



ELASTOMERIC GIRDER STOP PAD

SHEAR MODULUS = 165 PSI

BEARING DESIGN TABLE AASHTO METHOD B DESIGN	
SERVICE - I LIMIT STATE	
DEAD LOAD (DL) REACTION	220 KIPS
LIVE LOAD REACTION (W/O IMPACT)	120 KIPS
UNLOADED HEIGHT	2.30 IN
LOADED HEIGHT (DL)	2.27 IN
SHEAR MODULUS	165 PSI

NOTES:

1. GIRDER STOPS SHALL BE CONSTRUCTED AFTER GIRDER PLACEMENT.
2. THE ELASTOMERIC GIRDER STOP PADS SHALL BE BONDED TO THE GIRDER STOPS WITH AN APPROVED ADHESIVE.

SR I-90 FILE NO. ____ SHEET B334

Bridge Design Engr.	Khaleghi, B	
Supervisor	Aldrich, BS	
Designed By	Mizumori, A	06/20
Checked By	Howlett, K	12/21
Detailed By	McCarthy, D	10/19
Bridge Projects Engr.		
Prelim. Plan By		
Architect/Specialist		

M:\X-Team\I-90_WILDLIFE U-XING WB BRIDGE_SCR\window files\BEARING DETAILS.wnd

DATE	REVISION	BY	APP'D

REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
10	WASH.			
JOB NUMBER 19Y007				
CONTRACT NO.				

P.E. STAMP BOX — ANTHONY J. I. MIZUMORI — STATE OF WASHINGTON — 44307 — PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE:

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX — MARIAN S. ALDRICH — STATE OF WASHINGTON — 37834 — PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE:

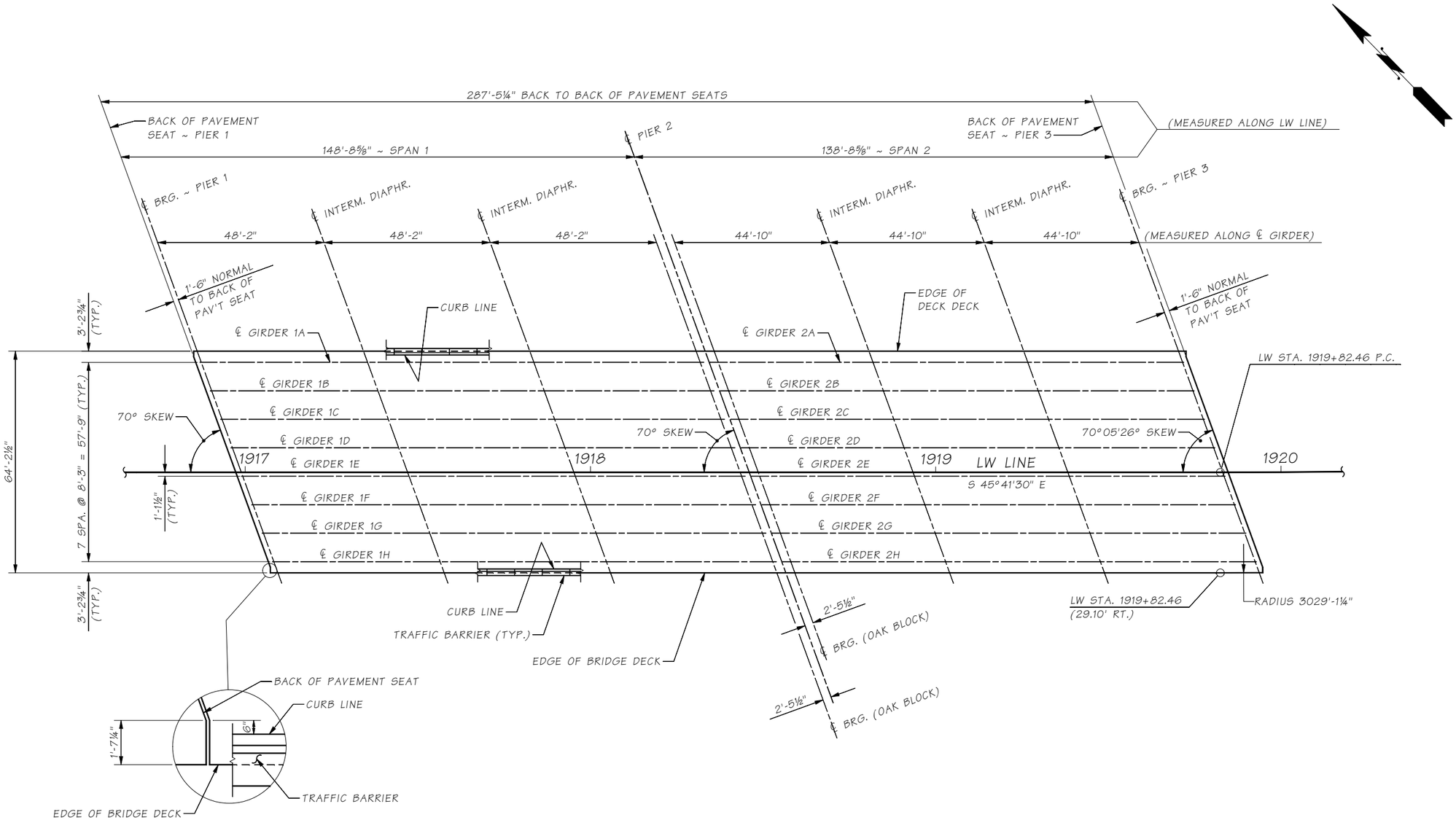
Washington State Department of Transportation

I-90
CABIN CREEK I/C TO W EASTON I/C
PHASE 3 - ADD LANES/WILDLIFE BRIDGES
I-90 WILDLIFE U-XING WB BR. NO. 90/116.7N

BEARING DETAILS

BRIDGE SHEET NO. BJ34
SHEET 1565 OF 1783 SHEETS

Mon Jan 31 16:03:55 2022



NOTE:

OTHER CORNERS SIMILAR.

FRAMING PLAN

SR I-90 FILE NO. ____ SHEET BJ35

Bridge Design Engr.	Khaleghi, B	M:\X-Team\I-90_WILDLIFE U-XING WB BRIDGE_SCR\window files\FRAMING PLAN.wnd			REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS	P.E. STAMP BOX	BRIDGE AND STRUCTURES OFFICE
Supervisor	Aldrich, BS				10	WASH.				ANTHONY J. I. MIZUMORI, STATE OF WASHINGTON, 44257, PROFESSIONAL ENGINEER	
Designed By	Mizumori, A 06/20				JOB NUMBER 19Y007					SEE SHEET CT9 DATE:	
Checked By	Howlett, K 12/21				CONTRACT NO.					P.E. STAMP BOX	
Detailed By	Bontemps, W 06/20									BRIAN S. ALDRICH, STATE OF WASHINGTON, 37834, PROFESSIONAL ENGINEER	
Bridge Projects Engr.										SEE SHEET CT9 DATE:	
Prelim. Plan By											
Architect/Specialist		DATE	REVISION	BY	APP'D						

Mon Jan 31 16:03:56 2022

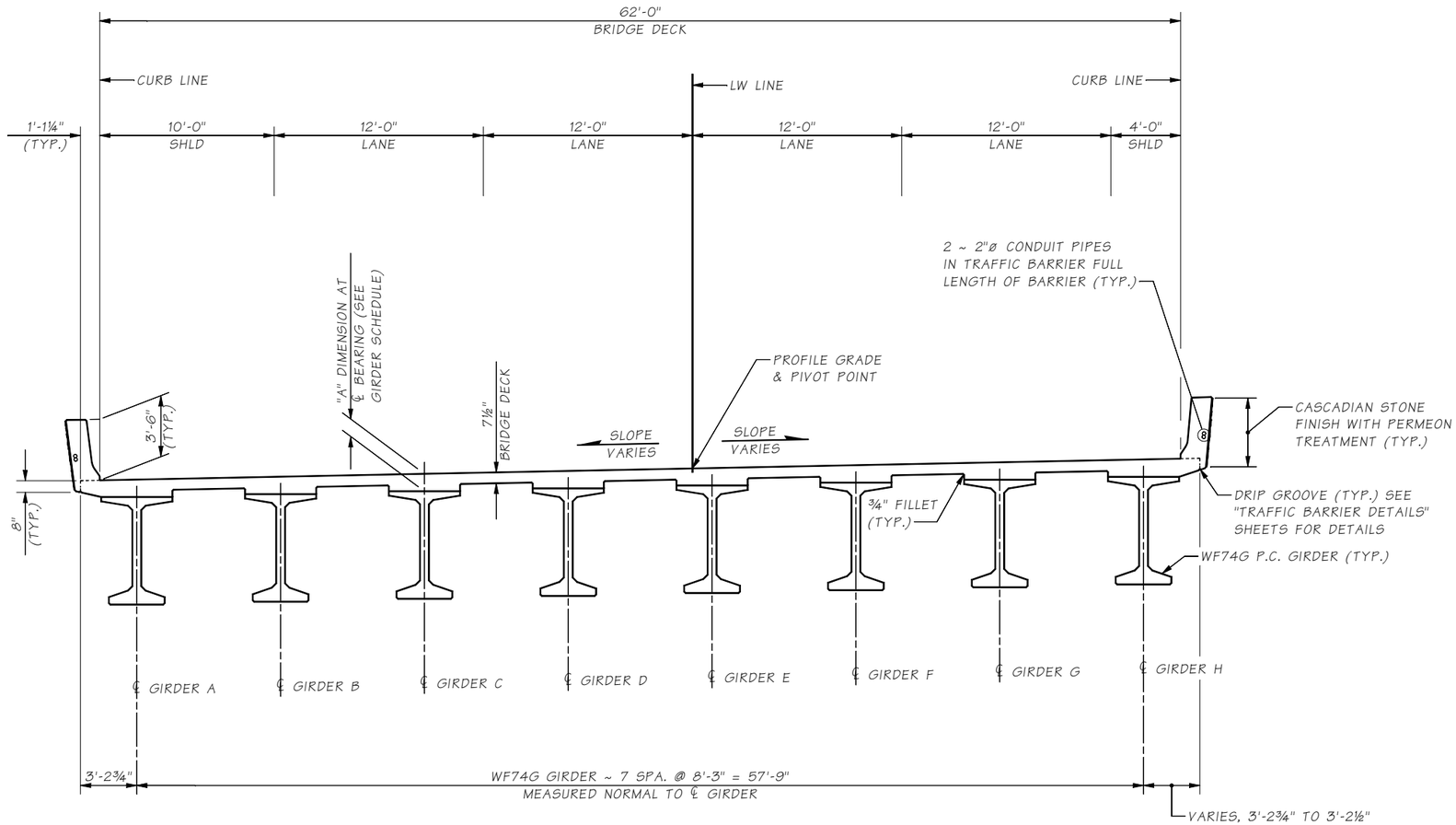
Washington State Department of Transportation

I-90
CABIN CREEK I/C TO W EASTON I/C
PHASE 3 - ADD LANES/WILDLIFE BRIDGES
I-90 WILDLIFE U-XING WB BR. NO. 90/116.7N

FRAMING PLAN

BRIDGE SHEET NO. BJ35

SHEET 1566 OF 1783 SHEETS



TYPICAL SECTION

SHOWN NEAR MID-SPAN

SR I-90 FILE NO. SHEET BJ336

Bridge Design Engr.	Khaleghi, B		M:\X-Team\I-90_WILDLIFE U-XING WB BRIDGE_SCR\window files\TYPICAL SECTION.wnd				REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor	Aldrich, BS						10	WASH.			
Designed By	Mizumori, A	06/20					JOB NUMBER 19Y007				
Checked By	Howlett, K	12/21									
Detailed By	McCarthy, D	10/19					CONTRACT NO.				
Bridge Projects Engr.											
Prelim. Plan By											
Architect/Specialist			DATE	REVISION	BY	APP'D					

Mon Jan 31 16:03:57 2022

P.E. STAMP BOX
ANTHONY J. I. MIZUMORI
STATE OF WASHINGTON
44307
PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE:

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX
MIRIAN S. ALDRICH
STATE OF WASHINGTON
37834
PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE:

Washington State Department of Transportation

I-90
CABIN CREEK I/C TO W EASTON I/C
PHASE 3 - ADD LANES/WILDLIFE BRIDGES
I-90 WILDLIFE U-XING WB BR. NO. 90/116.7N

TYPICAL SECTION

BRIDGE SHEET NO. BJ36

SHEET 1567 OF 1783 SHEETS

GIRDER SCHEDULE

SPAN	GIRDER	GIRDER SERIES	PLAN LENGTH (ALONG GIRDER GRADE) (SEE GIRDER NOTE 1)	INT. DIAPHRAGM TYPE (FULL OR PARTIAL)	GIRDER END DETAILS: END 1 TYPE	END 2 TYPE	L_d	θ_1	θ_2	P_1	P_2	MIN. CONC. COMP. STRENGTH: @ 28-DAYS F'C (KSI)	@ RELEASE F'CI (KSI)	NUMBER OF STRANDS (SEE GIRDER NOTE 2): STRAIGHT	HARPED	TEMPORARY	LOCATION OF C.G. STRANDS: E	F℄	Fo	STRAIGHT STRANDS TO EXTEND: END 1 STRANDS	END 1 EXTENSION LENGTH	END 2 STRANDS	END 2 EXTENSION LENGTH	"A" DIMENSION AT ℄ BEARINGS	DECK SCREED CAMBER C	MIDSPAN VERTICAL DEFLECTION D: LOWER BOUND @ 40 DAYS	UPPER BOUND @ 120 DAYS	REINFORCEMENT DETAILS: ZONE 1 SPACING	ZONE 1 LENGTH	ZONE 2 SPACING	ZONE 2 LENGTH	ZONE 3 SPACING	ZONE 3 LENGTH	H1 ⟨3⟩	SHIPPING AND HANDLING DETAILS: MAXIMUM MIDSPAN VERTICAL DEFLECTION AT SHIPPING	L	L_1	L_2	K_θ MINIMUM SHIPPING SUPPORT ROTATIONAL SPRING CONSTANT (KIP-IN/RAD)	W_{CC} MINIMUM SHIPPING SUPPORT CNTR.-TO-CNTR. WHEEL SPACING
1	ALL	WF74G	146'-5"	PARTIAL	B	D	1'-0¾"	70°	70°	1'-0¾"	-	8.0	6.3	38	14	2	3½"	4⅜"	10"	-	-	(13) TO (16)	2'-9"	1'-0"	2⅝"	2⅜"	5⅝"	2½"	1'-8"	6"	8'-0"	9"	3'-0"	7'-5"	6¼"	5'-0"	8'-6"	8'-6"	40,000	6'-0"
2	A	WF74G	136'-5⅝"	PARTIAL	D	B	1'-0¾"	70°	70°	-	1'-0¾"	7.3	5.8	34	13	2	3⅛"	4¼"	9½"	(13) TO (16)	2'-9"	-	-	1'-0"	2⅛"	2⅛"	4⅞"	2½"	1'-8"	6"	8'-0"	9"	3'-0"	7'-5"	5⅛"	3'-0"	6'-0"	6'-0"	40,000	6'-0"
2	B	WF74G	136'-5⅜"	PARTIAL	D	B	1'-0¾"	70°	70°	-	1'-0¾"	7.3	5.8	34	13	2	3⅛"	4¼"	9½"	(13) TO (16)	2'-9"	-	-	1'-0"	2⅛"	2"	4¾"	2½"	1'-8"	6"	8'-0"	9"	3'-0"	7'-5"	5⅛"	3'-0"	6'-0"	6'-0"	40,000	6'-0"
2	C	WF74G	136'-5¼"	PARTIAL	D	B	1'-0¾"	70°	70°	-	1'-0¾"	7.3	5.8	34	13	2	3⅛"	4¼"	9½"	(13) TO (16)	2'-9"	-	-	1'-0"	2"	2"	4¾"	2½"	1'-8"	6"	8'-0"	9"	3'-0"	7'-5"	5⅛"	3'-0"	6'-0"	6'-0"	40,000	6'-0"
2	D	WF74G	136'-5⅛"	PARTIAL	D	B	1'-0¾"	70°	70°	-	1'-0¾"	7.3	5.8	34	13	2	3⅛"	4¼"	9½"	(13) TO (16)	2'-9"	-	-	1'-0"	1⅞"	2"	4¾"	2½"	1'-8"	6"	8'-0"	9"	3'-0"	7'-5"	5⅛"	3'-0"	6'-0"	6'-0"	40,000	6'-0"
2	E	WF74G	136'-4⅞"	PARTIAL	D	B	1'-0¾"	70°	70°	-	1'-0¾"	7.3	5.8	34	13	2	3⅛"	4¼"	9½"	(13) TO (16)	2'-9"	-	-	1'-0"	1⅞"	2"	4¾"	2½"	1'-8"	6"	8'-0"	9"	3'-0"	7'-5"	5⅛"	3'-0"	6'-0"	6'-0"	40,000	6'-0"
2	F	WF74G	136'-4¾"	PARTIAL	D	B	1'-0¾"	70°	70°	-	1'-0¾"	7.3	5.8	34	13	2	3⅛"	4¼"	9½"	(13) TO (16)	2'-9"	-	-	1'-0"	2⅛"	2"	4¾"	2½"	1'-8"	6"	8'-0"	9"	3'-0"	7'-5"	5⅛"	3'-0"	6'-0"	6'-0"	40,000	6'-0"
2	G	WF74G	136'-4⅝"	PARTIAL	D	B	1'-0¾"	70°	70°	-	1'-0¾"	7.3	5.8	34	13	2	3⅛"	4¼"	9½"	(13) TO (16)	2'-9"	-	-	1'-0"	2⅛"	2"	4¾"	2½"	1'-8"	6"	8'-0"	9"	3'-0"	7'-5"	5⅛"	3'-0"	6'-0"	6'-0"	40,000	6'-0"
2	H	WF74G	136'-4⅜"	PARTIAL	D	B	1'-0¾"	70°	70°	-	1'-0¾"	7.3	5.8	34	13	2	3⅛"	4¼"	9½"	(13) TO (16)	2'-9"	-	-	1'-0"	2"	2⅛"	4⅞"	2½"	1'-8"	6"	8'-0"	9"	3'-0"	7'-5"	5⅛"	3'-0"	6'-0"	6'-0"	40,000	6'-0"

GIRDER NOTES

1. PLAN LENGTH SHALL BE INCREASED AS NECESSARY TO COMPENSATE FOR SHORTENING DUE TO PRESTRESS AND SHRINKAGE.

2. ALL PRETENSIONED AND TEMPORARY STRANDS SHALL BE 0.6"ø AASHTO M203 GRADE 270 LOW RELAXATION STRANDS, JACKED TO 202.5 KSI (43.9 KIPS PER STRAND).

⟨3⟩ FOR FIELD BENT STIRRUPS, PRE-BENT STIRRUPS ARE ALSO ACCEPTABLE.

Bridge Design Engr.	Khaleghi, B		M:\X-Team\I-90_WILDLIFE U-XING WB BRIDGE_SCR\window files\WF74G GIR 1.wnd			
Supervisor	Aldrich, BS					
Designed By	Mizumori, A	06/20				
Checked By	Howlett, K	12/21				
Detailed By	McCarthy, D	10/19				
Bridge Projects Engr.						
Prelim. Plan By						
Architect/Specialist			DATE	REVISION	BY	APP'D

REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
10	WASH.			

JOB NUMBER 19Y007

CONTRACT NO.

P.E. STAMP BOX — ANTHONY J. I. MIZUMORI, STATE OF WASHINGTON, 44257, STRUCTURAL ENGINEER, PROFESSIONAL ENGINEER — SEE SHEET CT9 DATE:

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX — BRIAN S. ALDRICH, STATE OF WASHINGTON, 37834, STRUCTURAL ENGINEER, PROFESSIONAL ENGINEER — SEE SHEET CT9 DATE:

Washington State Department of Transportation

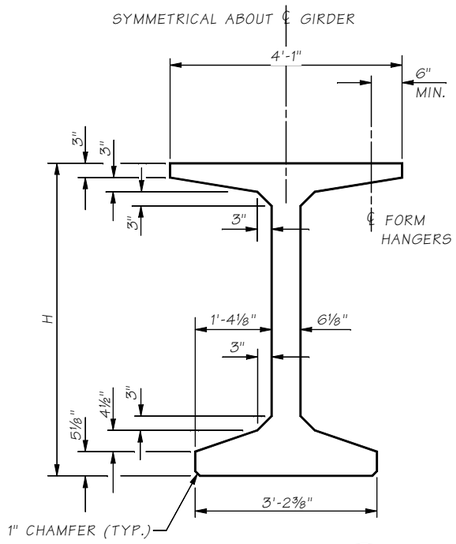
I-90
CABIN CREEK I/C TO W EASTON I/C
PHASE 3 - ADD LANES/WILDLIFE BRIDGES
I-90 WILDLIFE U-XING WB BR. NO. 90/116.7N

WF74G GIRDER DETAILS 1 OF 5

BRIDGE SHEET NO. BJ37

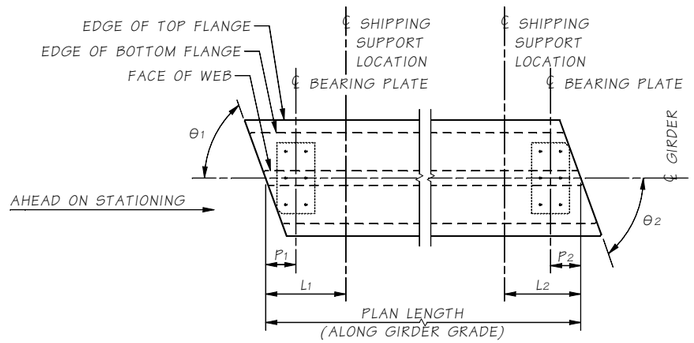
SHEET 1568 OF 1783 SHEETS

Mon Jan 31 16:03:58 2022



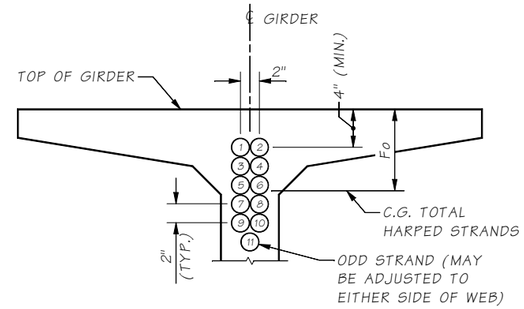
SECTION A

REINFORCEMENT AND STRANDS NOT SHOWN



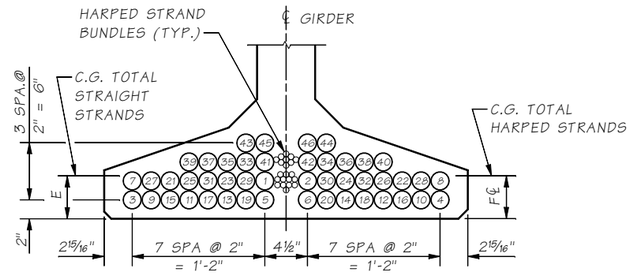
END 1 END 2

GIRDER PLAN



VIEW B

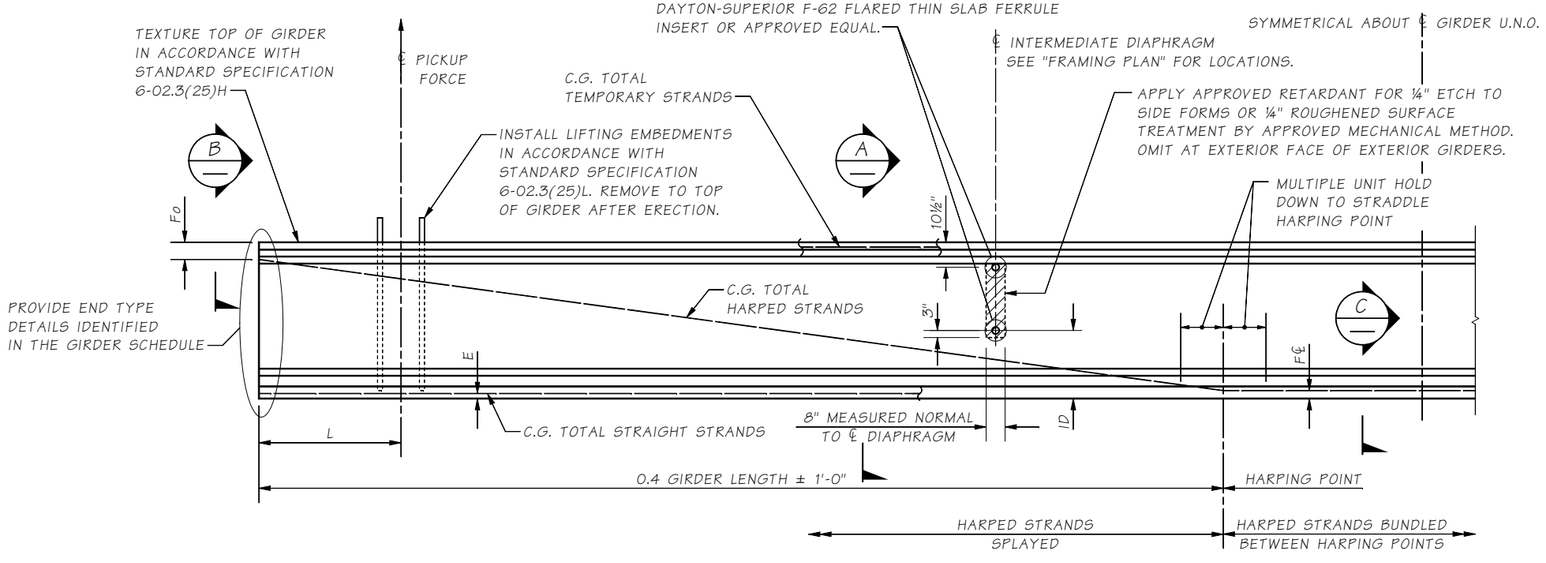
HARPED STRAND LOCATION SEQUENCE SHALL BE AS SHOWN (1), (2) ETC.



SECTION C

STRAIGHT STRAND LOCATION SEQUENCE SHALL BE AS SHOWN (1), (2) ETC.

3"ø OPEN HOLE. ADJUST HOLE LOCATION VERTICALLY TO MISS HARPED STRANDS. OMIT HOLES AND PLACE INSERTS ON THE INTERIOR FACE OF EXTERIOR GIRDERS. PLACE HOLES AND INSERTS PARALLEL TO DIAPHRAGM CENTERLINE. INSERTS SHALL BE 1"ø MEADOWBURKE MX-3 HI-TENSILE, 1"ø MEADOWBURKE FX-19 FERRULE INSERT, 1"ø x 5½" WILLIAMS F22 OPEN FERRULE INSERT, 1"ø x 4⅝" DAYTON-SUPERIOR F-62 FLARED THIN SLAB FERRULE INSERT OR APPROVED EQUAL.



GIRDER ELEVATION

GIRDER SERIES	H GIRDER HEIGHT	ID PARTIAL DEPTH INT. DIAPHRAGM	ID FULL DEPTH INT. DIAPHRAGM
WF36G	3'-0"	1'-2⅛"	1'-2⅛"
WF42G	3'-6"	1'-6"	1'-2⅛"
WF50G	4'-2"	1'-9½"	1'-2⅛"
WF58G	4'-10"	2'-3"	1'-2⅛"
WF66G	5'-6"	2'-4¾"	1'-2⅛"
WF74G	6'-2"	2'-8"	1'-2⅛"
WF83G	6'-10⅝"	2'-1⅝"	1'-2⅛"
WF95G	7'-10½"	3'-1½"	1'-2⅛"
WF100G	8'-4"	2'-8"	1'-2⅛"

SR I-90 FILE NO. SHEET B338

Bridge Design Engr.	Khaleghi, B	M:\X-Team\I-90_WILDLIFE U-XING WB BRIDGE_SCR\window files\WF74G GIR 2.wnd								
Supervisor	Aldrich, BS									
Designed By	Mizumori, A 06/20									
Checked By	Howlett, K 12/21									
Detailed By	McCarthy, D 10/19									
Bridge Projects Engr.										
Prelim. Plan By										
Architect/Specialist		DATE	REVISION	BY	APP'D					

REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
10	WASH.			
JOB NUMBER 19Y007				
CONTRACT NO.				

P.E. STAMP BOX — ANTHONY J. I. MIZUMORI, STATE OF WASHINGTON, 44207, PROFESSIONAL ENGINEER — SEE SHEET CT9 — DATE:

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX — MIRIAN S. ALDRICH, STATE OF WASHINGTON, 37834, PROFESSIONAL ENGINEER — SEE SHEET CT9 — DATE:

Washington State Department of Transportation

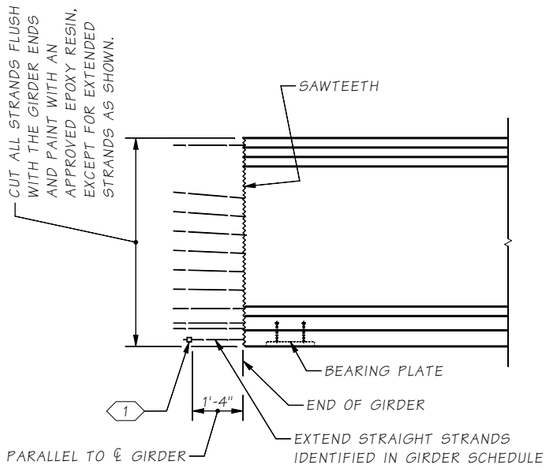
I-90
CABIN CREEK I/C TO W EASTON I/C
PHASE 3 - ADD LANES/WILDLIFE BRIDGES
I-90 WILDLIFE U-XING WB BR. NO. 90/116.7N

WF74G GIRDER DETAILS 2 OF 5

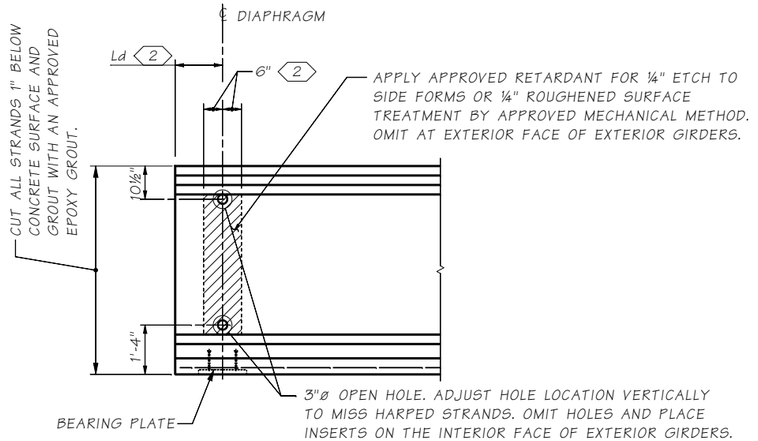
BRIDGE SHEET NO. BJ38

SHEET 1569 OF 1783 SHEETS

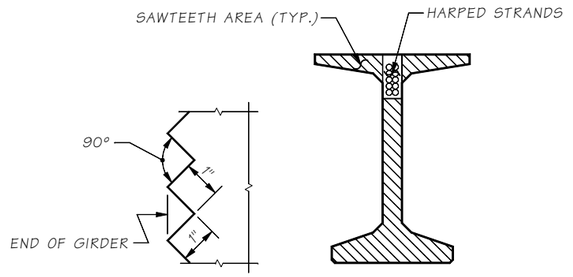
Mon Jan 31 16:04:00 2022



END TYPE A

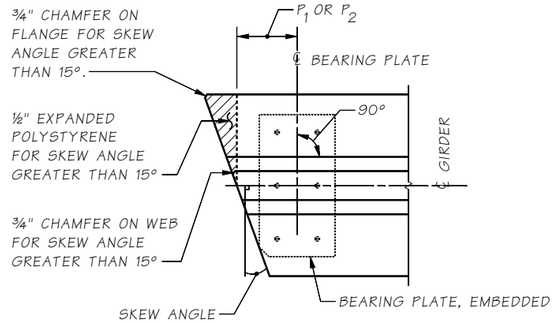


END TYPE B

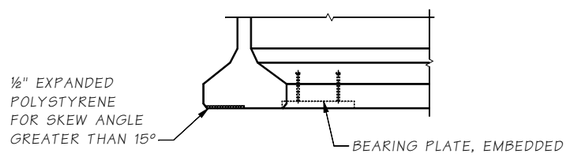


SAWTEETH DETAIL

SAWTEETH SHALL BE FULL WIDTH OVER AREA SHOWN



PLAN



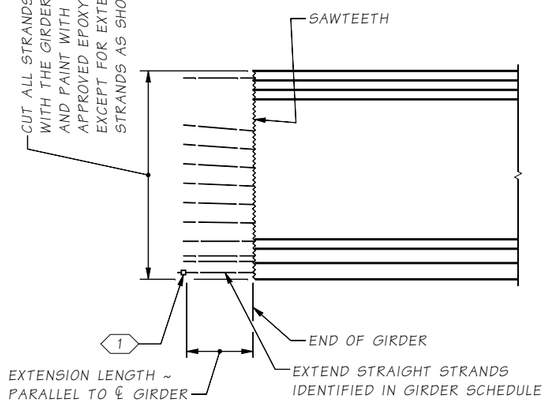
ELEVATION

BEARING RECESS AND BOTTOM FLANGE SPALL PROTECTION DETAIL

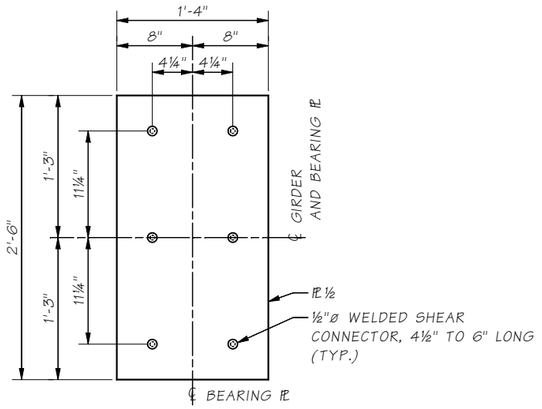
BEARING RECESS FORMS SHALL BE CONSTRUCTED AND FASTENED TO AVOID GIRDER DAMAGE DURING STRAND RELEASE.

NOTES:

1. 1¹¹⁄₁₆"ø MIN. STRAND CHUCK OR ASTM A108 2¾"ø x 1⅛" STRAND ANCHOR. ANCHOR STRAND WITH WEDGES BEFORE GIRDER ERECTION. VERIFY WEDGES ARE SEATED TIGHTLY IMMEDIATELY BEFORE PLACING DIAPHRAGM CONCRETE.
2. MEASURED NORMAL TO ℄ DIAPHRAGM



END TYPE D



BEARING ℄ DETAIL

PLATE SHALL BE HOT DIP GALVANIZED OR PAINTED WITH GALVANIZING REPAIR PAINT OR A ZINC-RICH PRIMER. SEE BEARING DETAILS SHEET FOR ADDITIONAL INFORMATION.

SR I-90 FILE NO. SHEET B339

Bridge Design Engr.	Khaleghi, B	M:\X-Team\I-90_WILDLIFE U-XING WB BRIDGE_SCR\window files\WF74G GIR 3.wnd								
Supervisor	Aldrich, BS									
Designed By	Mizumori, A 06/20									
Checked By	Howlett, K 12/21									
Detailed By	McCarthy, D 10/19									
Bridge Projects Engr.										
Prelim. Plan By										
Architect/Specialist		DATE	REVISION	BY	APP'D					

REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
10	WASH.			
JOB NUMBER 19Y007				
CONTRACT NO.				

P.E. STAMP BOX — ANTHONY J. I. MIZUMORI — STATE OF WASHINGTON — 44357 — PROFESSIONAL ENGINEER — SEE SHEET CT9 — DATE:

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX — MIRIAN S. ALDRICH — STATE OF WASHINGTON — 37834 — PROFESSIONAL ENGINEER — SEE SHEET CT9 — DATE:

Washington State Department of Transportation

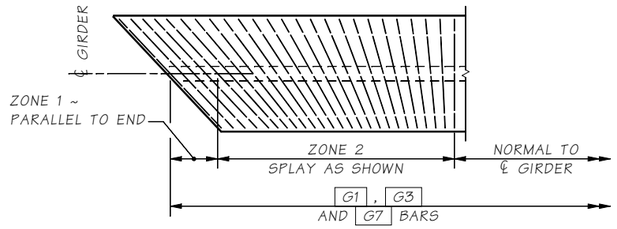
I-90
CABIN CREEK I/C TO W EASTON I/C
PHASE 3 - ADD LANES/WILDLIFE BRIDGES
I-90 WILDLIFE U-XING WB BR. NO. 90/116.7N

WF74G GIRDER DETAILS 3 OF 5

BRIDGE SHEET NO. BJ39

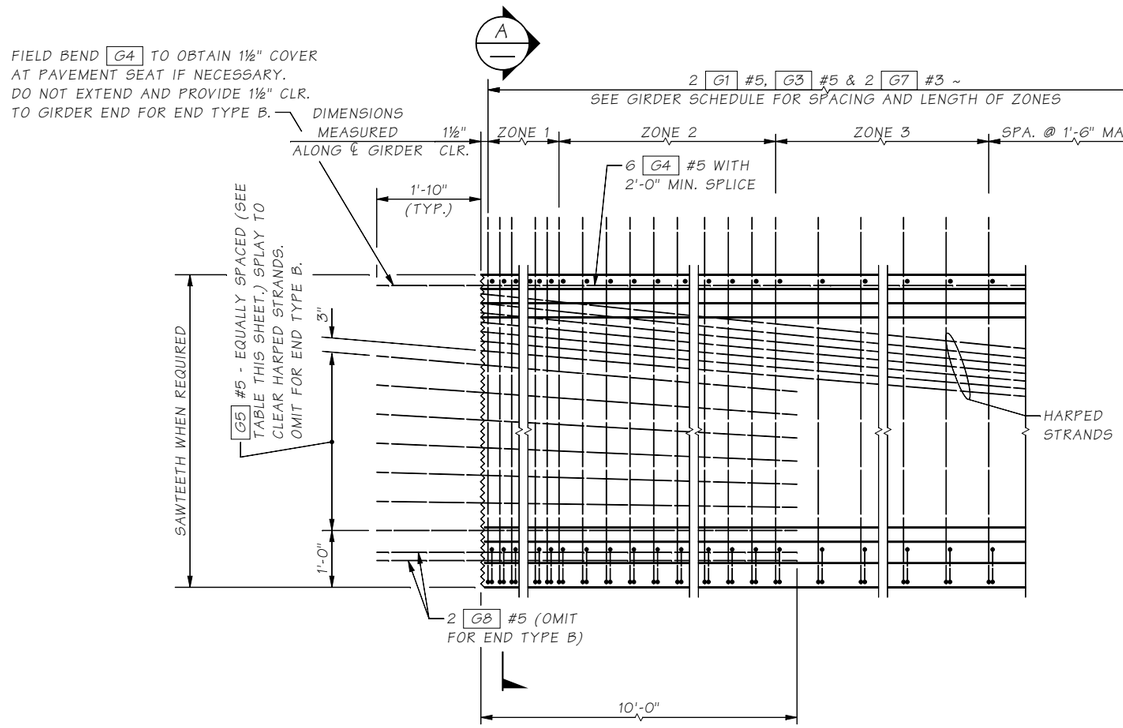
SHEET 1570 OF 1783 SHEETS

Mon Jan 31 16:04:02 2022



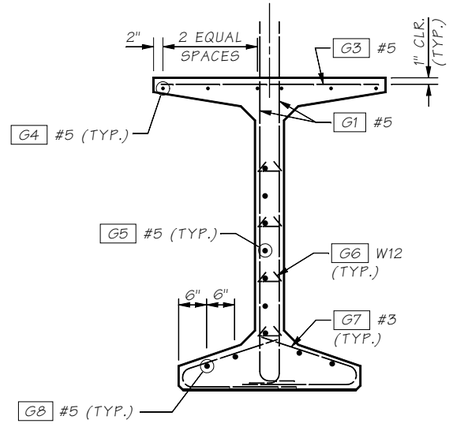
PLAN
TRANSVERSE REINFORCING AT SKEWED ENDS

LENGTHS OF G3 AND G7 VARY WITH SKEW.
ONLY TRANSVERSE REINFORCEMENT SHOWN.



REINFORCEMENT END ELEVATION

STRAIGHT AND TEMPORARY STRANDS NOT SHOWN FOR CLARITY.
WF66G SHOWN, OTHERS SIMILAR



SECTION A

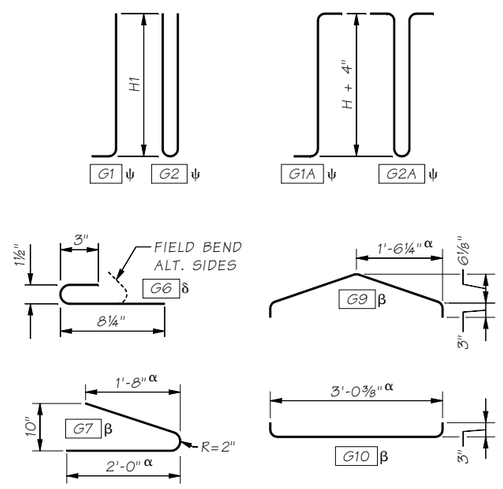
STRANDS
NOT SHOWN

GIRDER REINFORCEMENT NOTES

1. DEFORMED WELDED WIRE REINFORCEMENT MAY BE SUBSTITUTED FOR MILD REINFORCEMENT IN ACCORDANCE WITH STANDARD SPECIFICATION 6-02.3(25)A.

GIRDER SERIES	NO. OF G5 BARS
WF36G	3
WF42G	4
WF50G	5
WF58G	6
WF66G	7
WF74G	7
WF83G	8
WF95G	9
WF100G	10

BENDING DIAGRAM
(ALL DIMENSIONS ARE OUT TO OUT)



α - VARIES FOR SKEWED ENDS.
δ - #3 OR #4 MAY BE SUBSTITUTED. FIELD BENDING IS OPTIONAL.
β - PAIRS OF G7 BARS, OR G9 AND G10 BARS, MAY BE USED INTERCHANGEABLY AS BOTTOM FLANGE TIES.
ψ - 1 G2 MAY BE SUBSTITUTED FOR 2 G1 WITHIN ZONE 1.

SR I-90 FILE NO. ____ SHEET BJ40

Bridge Design Engr.	Khaleghi, B	M:\X-Team\I-90_WILDLIFE U-XING WB BRIDGE_SCR\window files\WF74G GIR 4.wnd	
Supervisor	Aldrich, BS		
Designed By	Mizumori, A 06/20		
Checked By	Howlett, K 12/21		
Detailed By	McCarthy, D 10/19		
Bridge Projects Engr.			
Prelim. Plan By			
Architect/Specialist			

DATE	REVISION	BY	APP'D

REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
10	WASH.			
JOB NUMBER 19Y007				
CONTRACT NO.				

P.E. STAMP BOX
ANTHONY J. I. MIZUMORI — STATE OF WASHINGTON — 44207 — PROFESSIONAL ENGINEER — STRUCTURAL ENGINEER
SEE SHEET CT9
DATE:

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX
BRIAN S. ALDRICH — STATE OF WASHINGTON — 37834 — PROFESSIONAL ENGINEER — STRUCTURAL ENGINEER
SEE SHEET CT9
DATE:

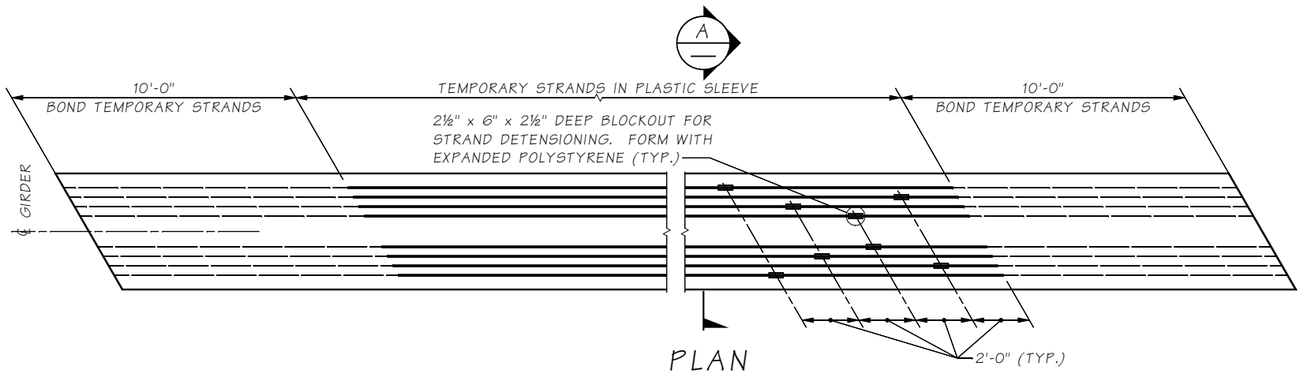
Washington State Department of Transportation

I-90
CABIN CREEK I/C TO W EASTON I/C
PHASE 3 - ADD LANES/WILDLIFE BRIDGES
I-90 WILDLIFE U-XING WB BR. NO. 90/116.7N

WF74G GIRDER
DETAILS 4 OF 5

BRIDGE SHEET NO. BJ40
SHEET 1571 OF 1783 SHEETS

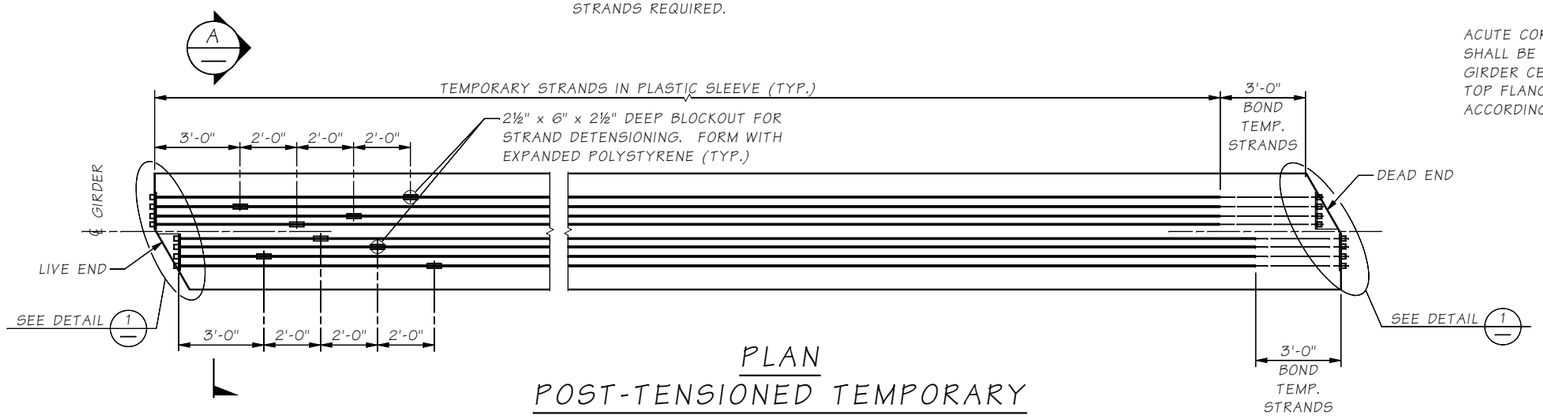
Mon Jan 31 16:04:03 2022



PLAN

PRETENSIONED TEMPORARY TOP STRANDS ALTERNATE

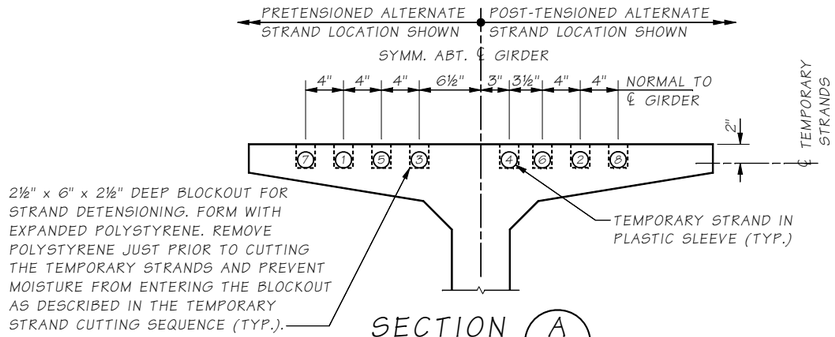
SEE GIRDER SCHEDULE FOR NUMBER OF TEMPORARY STRANDS REQUIRED.



PLAN

POST-TENSIONED TEMPORARY TOP STRANDS ALTERNATE

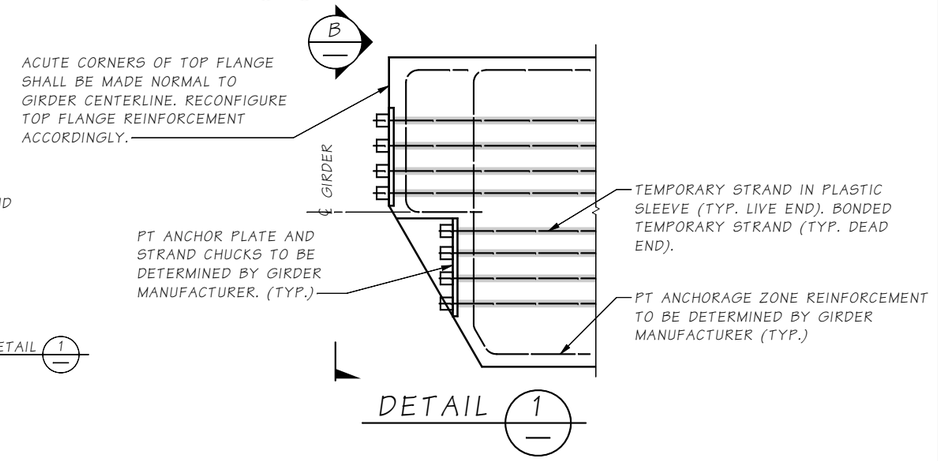
SEE GIRDER SCHEDULE FOR NUMBER OF TEMPORARY STRANDS REQUIRED.



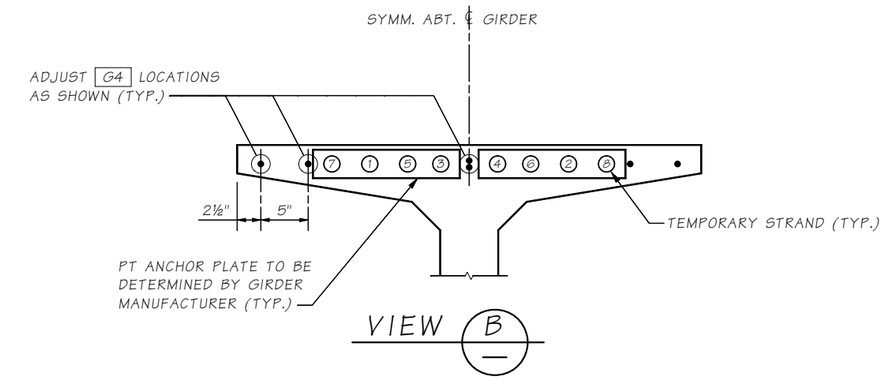
SECTION A

NOTES:

1. TEMPORARY STRAND LOCATION SEQUENCE SHALL BE AS SHOWN (1), (2) ETC.



DETAIL 1



VIEW B

TEMPORARY STRAND NOTES

1. TEMPORARY TOP STRANDS SHALL BE EITHER PRETENSIONED OR POST-TENSIONED IN ACCORDANCE WITH STANDARD SPECIFICATION SECTION 6-02.3(25)L.
2. FOR GIRDERS ERECTED ON A LONGITUDINAL GRADE, STRAND DETENSIONING BLOCKOUTS SHALL BE PLACED AT THE LOW END OF THE GIRDER.
3. SEE "TEMPORARY STRAND CUTTING SEQUENCE" ON CONSTRUCTION SEQUENCE SHEET FOR TEMPORARY STRAND DETENSIONING PROCEDURE.

SR I-90 FILE NO. SHEET BJ41

Bridge Design Engr.	Khaleghi, B	M:\X-Team\I-90_WILDLIFE U-XING WB BRIDGE_SCR\window files\WF74G GIR 5.wnd									
Supervisor	Aldrich, BS						REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Designed By	Mizumori, A 06/20						10	WASH.			
Checked By	Howlett, K 12/21						JOB NUMBER 19Y007				
Detailed By	McCarthy, D 10/19						CONTRACT NO.				
Bridge Projects Engr.											
Prelim. Plan By											
Architect/Specialist		DATE	REVISION	BY	APP'D						

Mon Jan 31 16:04:04 2022

P.E. STAMP BOX — ANTHONY J. I. MIZUMORI — STATE OF WASHINGTON — 44057 — PROFESSIONAL ENGINEER — SEE SHEET CT9 — DATE:

BRIDGE AND STRUCTURES OFFICE

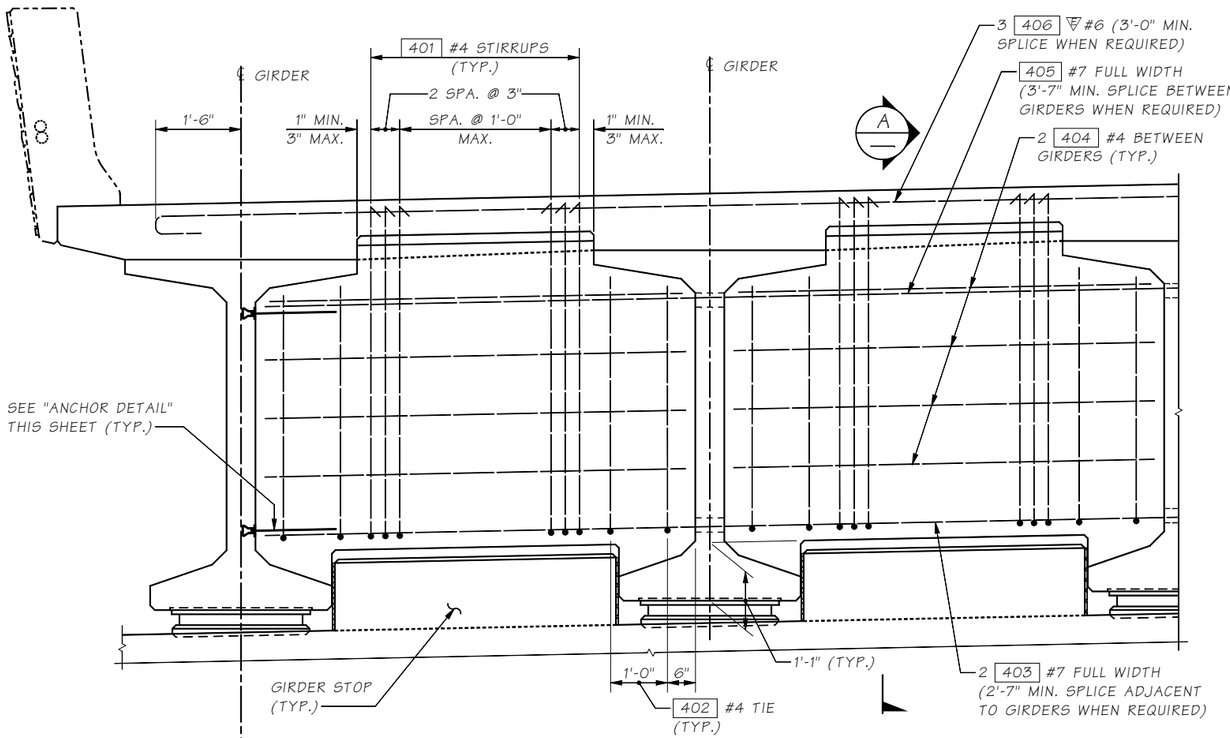
P.E. STAMP BOX — BRIAN S. ALDRICH — STATE OF WASHINGTON — 37834 — PROFESSIONAL ENGINEER — SEE SHEET CT9 — DATE:

Washington State Department of Transportation

I-90
CABIN CREEK I/C TO W EASTON I/C
PHASE 3 - ADD LANES/WILDLIFE BRIDGES
I-90 WILDLIFE U-XING WB BR. NO. 90/116.7N

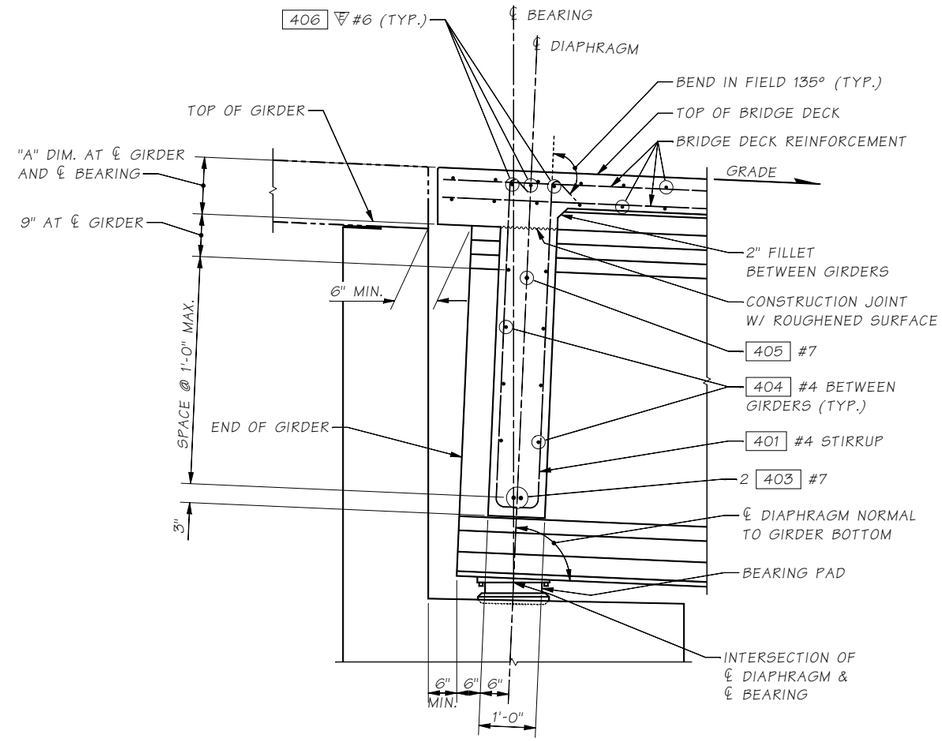
WF74G GIRDER
DETAILS 5 OF 5

BRIDGE SHEET NO. BJ41
SHEET 1572 OF 1783 SHEETS



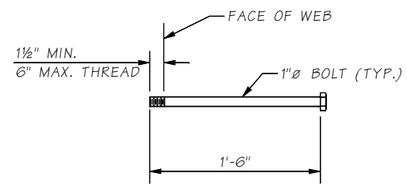
ELEVATION
END DIAPHRAGM

DIMENSIONS ARE ALONG ℄ DIAPHRAGM



SECTION A

LONGITUDINAL DIMENSIONS ARE NORMAL TO DIAPHRAGM.
GIRDER STOP NOT SHOWN FOR CLARITY.



ANCHOR DETAIL

ASTM A-307

DIAPHRAGM NOTES:

1. GIRDERS SHALL BE HELD RIGIDLY IN PLACE WHEN DIAPHRAGMS ARE PLACED.
2. IT MAY BE NECESSARY TO THREAD #7 REINFORCING BARS THROUGH HOLES IN GIRDERS PRIOR TO PLACING EXTERIOR GIRDERS.
3. CUT/RELEASE GIRDER TEMPORARY STRANDS BEFORE CASTING DIAPHRAGM. SEE TEMPORARY STRAND CUTTING SEQUENCE.
4. FOR CONCRETE PLACEMENT PROCEDURE SEE CONSTRUCTION SEQUENCE SHEETS.

SR I-90 FILE NO. SHEET BJ42

Bridge Design Engr.	Khaleghi, B	M:\X-Team\I-90_WILDLIFE U-XING WB BRIDGE_SCR\window files\END DIAPHRAGM.wnd				REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor	Aldrich, BS					10	WASH.			
Designed By	Mizumori, A 06/20					JOB NUMBER 19Y007				
Checked By	Howlett, K 12/21					CONTRACT NO.				
Detailed By	McCarthy, D 10/19									
Bridge Projects Engr.										
Prelim. Plan By										
Architect/Specialist		DATE	REVISION	BY	APP'D					

P.E. STAMP BOX: ANTHONY J. I. MIZUMORI, STATE OF WASHINGTON, 14357, PROFESSIONAL ENGINEER — SEE SHEET CT9 — DATE:

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX: BRIAN S. ALDRICH, STATE OF WASHINGTON, 37934, PROFESSIONAL ENGINEER — SEE SHEET CT9 — DATE:

Washington State Department of Transportation

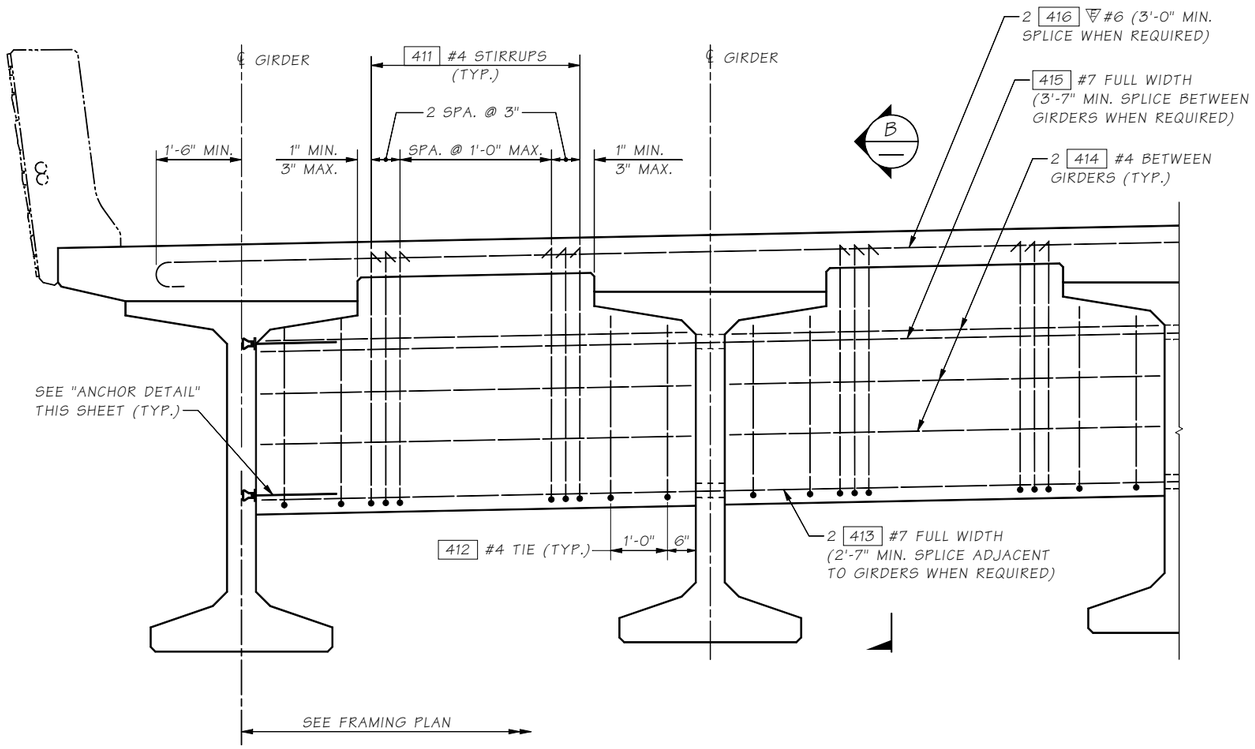
I-90
CABIN CREEK I/C TO W EASTON I/C
PHASE 3 - ADD LANES/WILDLIFE BRIDGES
I-90 WILDLIFE U-XING WB BR. NO. 90/116.7N

END DIAPHRAGM DETAILS

BRIDGE SHEET NO. BJ42

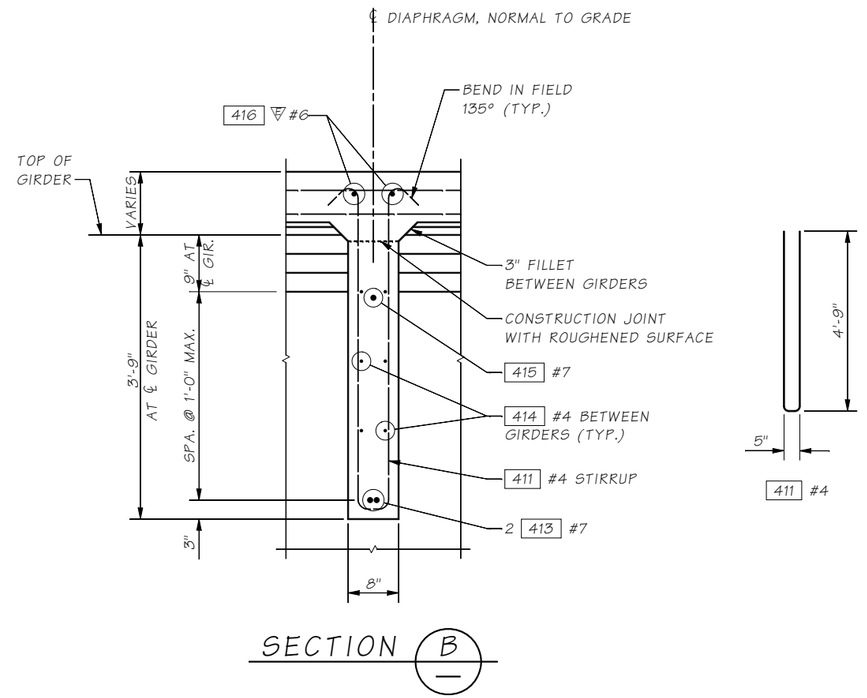
SHEET 1573 OF 1783 SHEETS

Mon Jan 31 16:04:05 2022

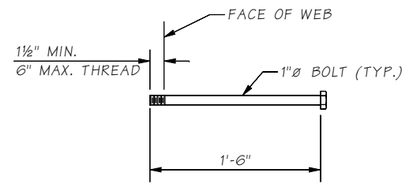


ELEVATION
PARTIAL DEPTH INTERMEDIATE DIAPHRAGM

DIMENSIONS ARE ALONG DIAPHRAGM



SECTION B



ANCHOR DETAIL

ASTM A307

NOTES:

1. GIRDERS SHALL BE HELD RIGIDLY IN PLACE WHEN DIAPHRAGMS ARE PLACED.
2. IT MAY BE NECESSARY TO THREAD REINFORCING BARS THROUGH HOLES IN GIRDERS PRIOR TO PLACING EXTERIOR GIRDERS.
3. CUT/RELEASE GIRDER TEMPORARY STRANDS BEFORE CASTING DIAPHRAGM. SEE TEMPORARY STRAND CUTTING SEQUENCE.
4. LONGITUDINAL DIMENSIONS ARE NORMAL TO SKEW.
5. FOR CONCRETE PLACEMENT PROCEDURE SEE "SUPERSTRUCTURE CONSTRUCTION SEQUENCE" SHEET.

SR I-90 FILE NO. ____ SHEET BJ43

Bridge Design Engr.	Khaleghi, B	M:\X-Team\I-90_WILDLIFE U-XING WB BRIDGE_SCR\window files\INTERM DIAPHRAGM.wnd			REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS	P.E. STAMP BOX	
Supervisor	Aldrich, BS				10	WASH.				ANTHONY J. I. MIZUMORI, STATE OF WASHINGTON, 44307, PROFESSIONAL ENGINEER, STRUCTURAL ENGINEER	BRIDGE AND STRUCTURES OFFICE
Designed By	Mizumori, A 06/20				JOB NUMBER 19Y007					SEE SHEET CT9	
Checked By	Howlett, K 12/21				CONTRACT NO.					DATE:	
Detailed By	McCarthy, D 10/19									P.E. STAMP BOX	
Bridge Projects Engr.										BRIAN S. ALDRICH, STATE OF WASHINGTON, 37884, PROFESSIONAL ENGINEER, STRUCTURAL ENGINEER	
Prelim. Plan By										SEE SHEET CT9	
Architect/Specialist		DATE	REVISION	BY	APP'D					DATE:	

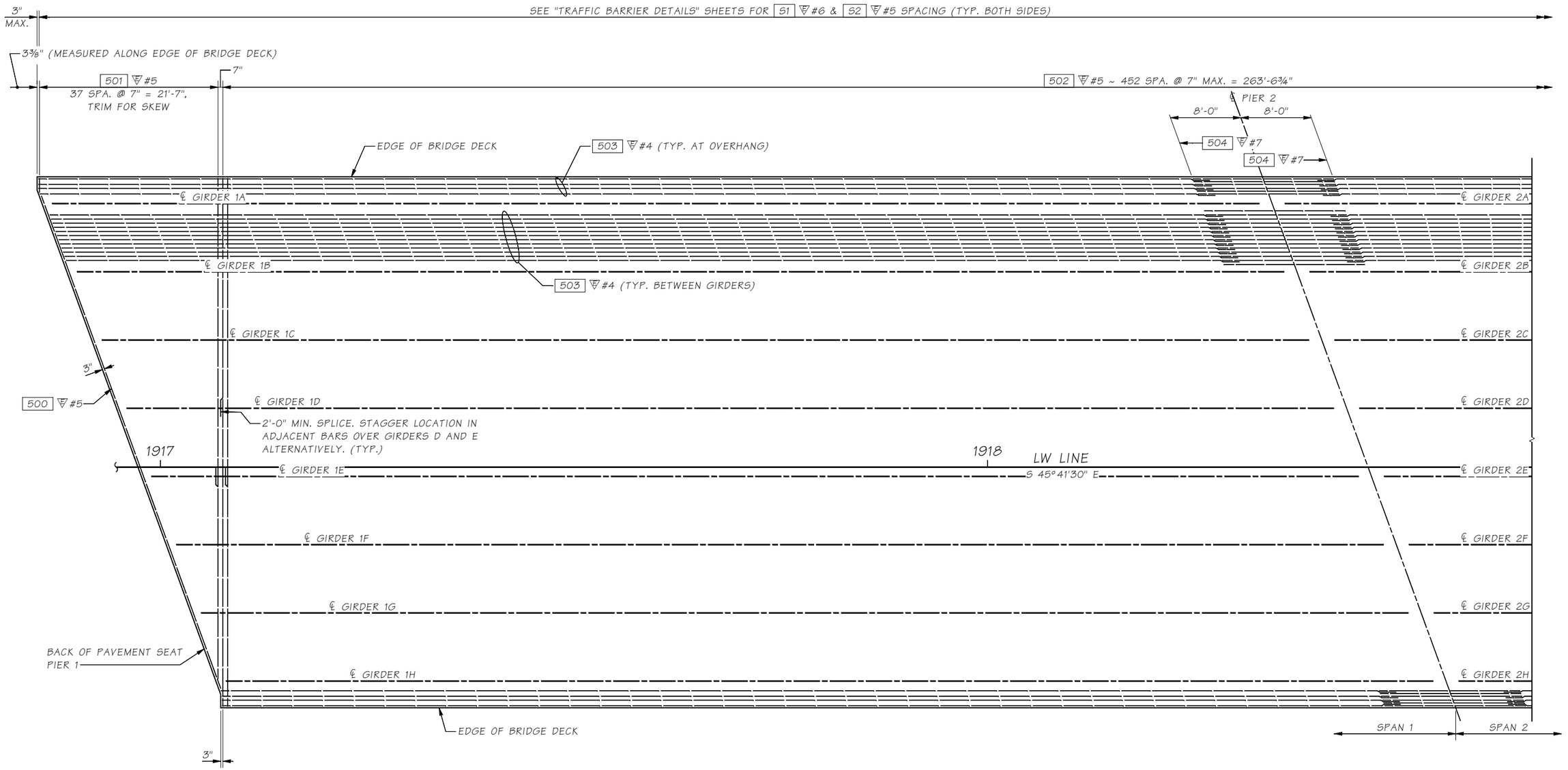
Mon Jan 31 16:04:06 2022

Washington State Department of Transportation

I-90
CABIN CREEK I/C TO W EASTON I/C
PHASE 3 - ADD LANES/WILDLIFE BRIDGES
I-90 WILDLIFE U-XING WB BR. NO. 90/116.7N

INTERMEDIATE DIAPHRAGM DETAILS

BRIDGE SHEET NO. BJ43
SHEET 1574 OF 1783 SHEETS



NOTES:

1. ALL TRANSVERSE BARS ARE NORMAL TO GIRDER CENTERLINES. S1 BARS, AND S2 BARS SHALL BE PLACED NORMAL TO CURB LINE.
2. LOCATION OF REBAR SPLICES AT CONTRACTOR'S OPTION, UNLESS OTHERWISE NOTED.
3. MIN. REBAR SPLICE LENGTH UNLESS NOTED OTHERWISE SHALL BE: #4 = 2'-0", #5 = 2'-0".
4. NO MORE THAN 50% OF REBAR SHALL BE SPLICED AT ANY ONE LOCATION UNLESS NOTED OTHERWISE. STAGGER SPLICES AT A MINIMUM OF 3'-0".

PLAN
BOTTOM MAT SPAN 1 BRIDGE DECK REINFORCEMENT

SR I-90 FILE NO. ____ SHEET BJ44

Bridge Design Engr.	Khaleghi, B	
Supervisor	Aldrich, BS	
Designed By	Mizumori, A	06/20
Checked By	Howlett, K	12/21
Detailed By	McCarthy, D	10/19
Bridge Projects Engr.		
Prelim. Plan By		
Architect/Specialist		

M:\X-Team\I-90_WILDLIFE U-XING WB BRIDGE_SCR\window files\SLAB REINF BOT.wnd

DATE	REVISION	BY	APP'D

REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
10	WASH.			
JOB NUMBER 19Y007				
CONTRACT NO.				

P.E. STAMP BOX
ANTHONY J. J. MIZUMORI — STATE OF WASHINGTON — 44257 — PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE:

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX
BRIAN S. ALDRICH — STATE OF WASHINGTON — 37834 — PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE:

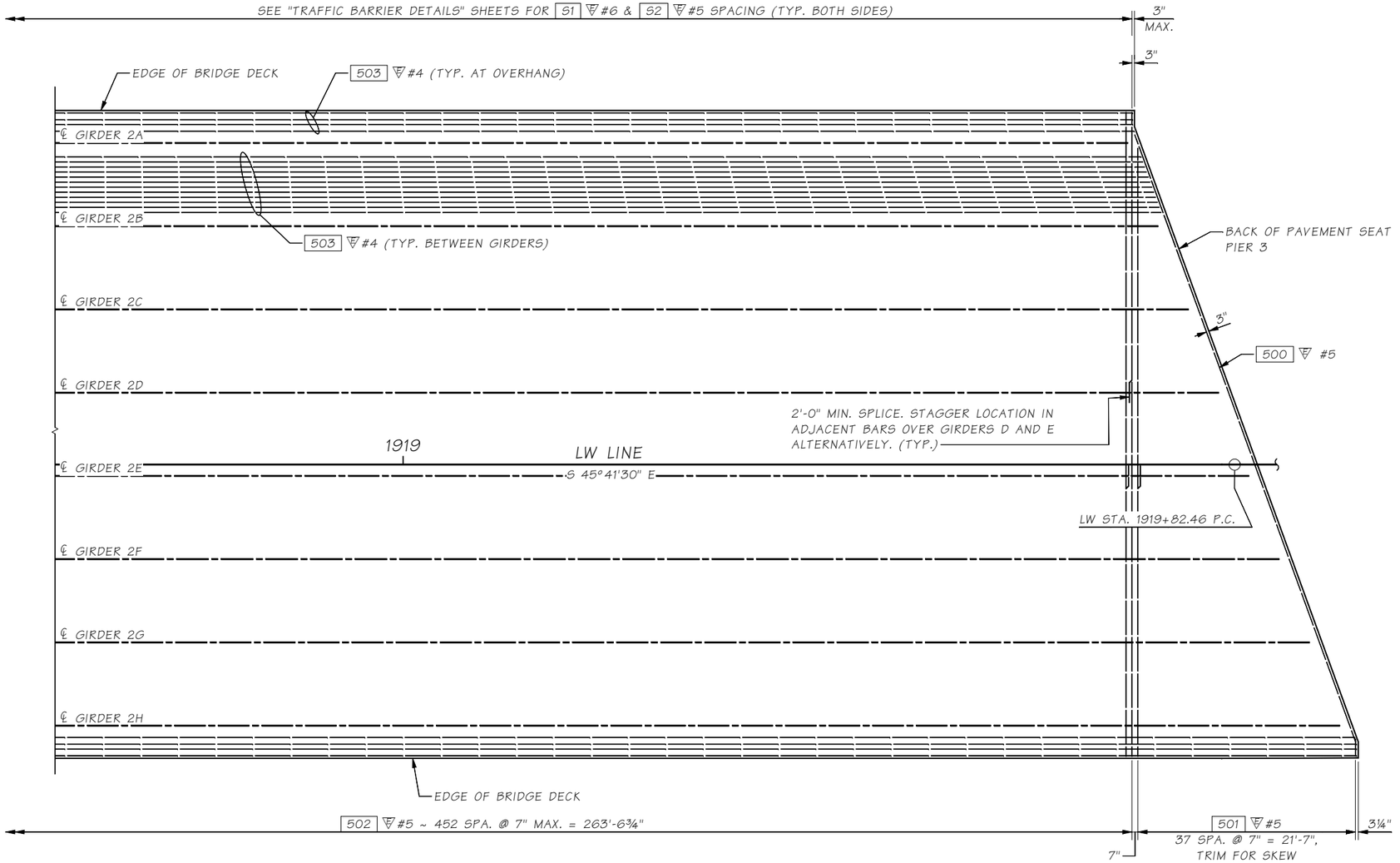
Washington State Department of Transportation

I-90
CABIN CREEK I/C TO W EASTON I/C
PHASE 3 - ADD LANES/WILDLIFE BRIDGES
I-90 WILDLIFE U-XING WB BR. NO. 90/116.7N

BRIDGE DECK REINFORCEMENT PLAN
BOTTOM MAT DETAILS 1 OF 2

BRIDGE SHEET NO. BJ44
SHEET 1575 OF 1783 SHEETS

Mon Jan 31 16:04:07 2022



NOTES:

1. ALL TRANSVERSE BARS ARE NORMAL TO GIRDER CENTERLINES. 51 BARS, AND 52 BARS SHALL BE PLACED NORMAL TO CURB LINE.
2. LOCATION OF REBAR SPLICES AT CONTRACTOR'S OPTION, UNLESS OTHERWISE NOTED.
3. MIN. REBAR SPLICE LENGTH UNLESS NOTED OTHERWISE SHALL BE: #4 = 2'-0", #5 = 2'-0".
4. NO MORE THAN 50% OF REBAR SHALL BE SPLICED AT ANY ONE LOCATION UNLESS NOTED OTHERWISE. STAGGER SPLICES AT A MINIMUM OF 3'-0".

PLAN
BOTTOM MAT SPAN 2 BRIDGE DECK REINFORCEMENT

SR I-90 FILE NO. ____ SHEET BJ45

Bridge Design Engr.	Khaleghi, B	M:\X-Team\I-90_WILDLIFE U-XING WB BRIDGE_SCR\window files\SLAB REINF BOT 2.wnd			REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor	Aldrich, BS				10	WASH.			
Designed By	Mizumori, A 06/20				JOB NUMBER 19Y007				
Checked By	Howlett, K 12/21				CONTRACT NO.				
Detailed By	Bontemps, W 05/20								
Bridge Projects Engr.									
Prelim. Plan By									
Architect/Specialist		DATE	REVISION	BY	APP'D				

P.E. STAMP BOX — ANTHONY J. I. MIZUMORI — STATE OF WASHINGTON — 14600 — PROFESSIONAL ENGINEER — SEE SHEET CT9 — DATE:

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX — BRIAN S. ALDRICH — STATE OF WASHINGTON — 37834 — PROFESSIONAL ENGINEER — SEE SHEET CT9 — DATE:

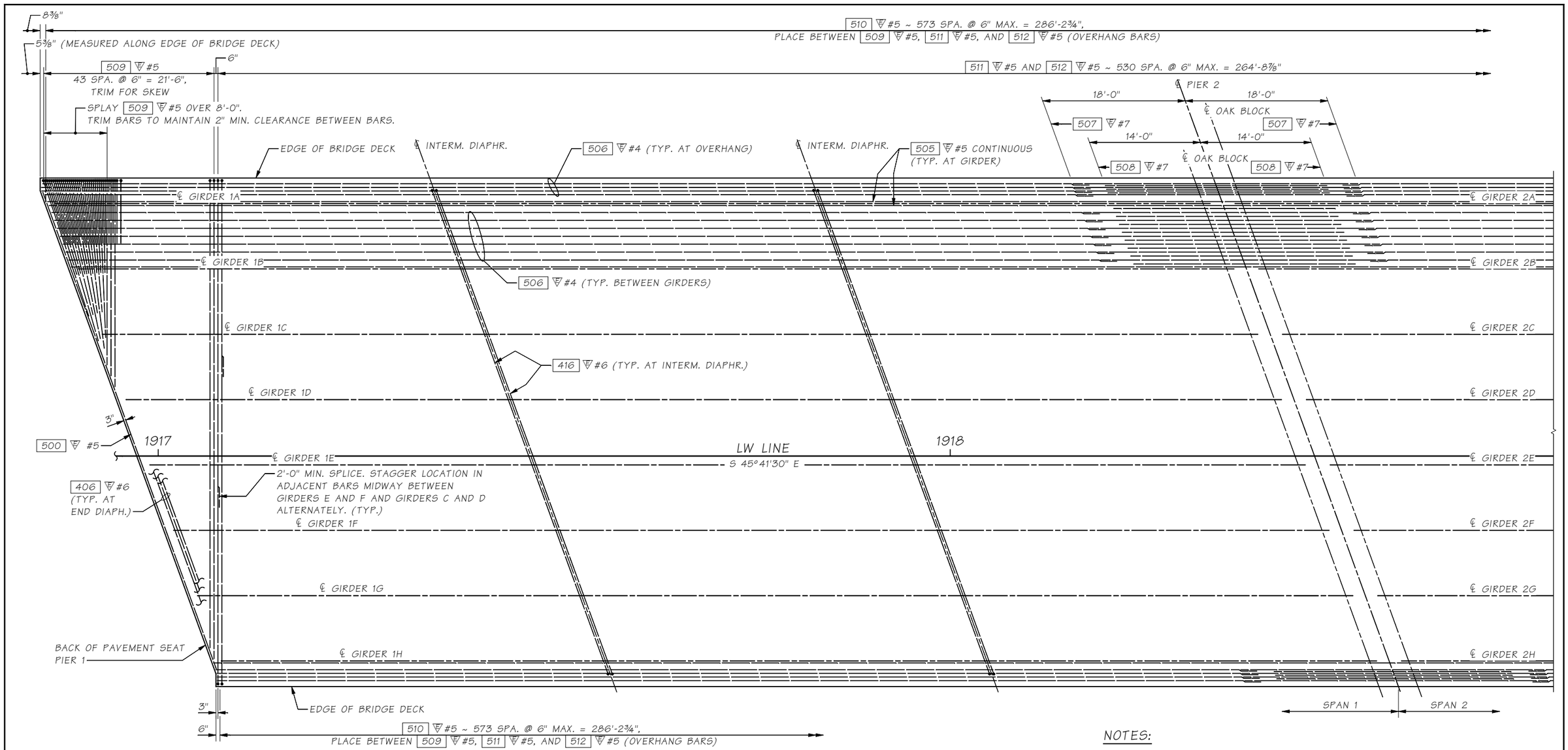
Washington State Department of Transportation

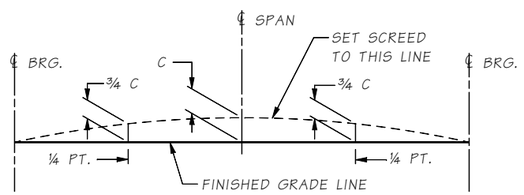
I-90
CABIN CREEK I/C TO W EASTON I/C
PHASE 3 - ADD LANES/WILDLIFE BRIDGES
I-90 WILDLIFE U-XING WB BR. NO. 90/116.7N

BRIDGE DECK REINFORCEMENT PLAN
BOTTOM MAT DETAILS 2 OF 2

BRIDGE SHEET NO. BJ45
SHEET 1576 OF 1783 SHEETS

Mon Jan 31 16:04:09 2022





SCREED SETTING DIMENSIONS

FOR DIMENSION "C" SEE GIRDER SCHEDULE

NOTES:

1. LOCATION OF REBAR SPLICES AT CONTRACTOR'S OPTION, UNLESS OTHERWISE NOTED.
2. ALL TRANSVERSE BARS ARE NORMAL TO GIRDER CENTERLINES EXCEPT CORNER SPLAYED BARS.
3. MIN. REBAR SPLICE LENGTH UNLESS NOTED OTHERWISE SHALL BE:
   #4 = 2'-0"
   #5 = 2'-0"
   WHEN SPLICING DIFFERENT SIZE OF REBARS, THE MIN. SPLICE LENGTH OF THE SMALLER BAR MAY BE USED.
4. NO MORE THAN 50% OF REBAR SHALL BE SPLICED AT ANY ONE LOCATION UNLESS NOTED OTHERWISE. STAGGER SPLICES AT A MINIMUM OF 3'-0".

PLAN

TOP MAT SPAN 1 BRIDGE DECK REINFORCEMENT

Bridge Design Engr.	Khaleghi, B	M:\X-Team\I-90_WILDLIFE U-XING WB BRIDGE_SCR\window files\SLAB REINF TOP.wnd			REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor	Aldrich, BS				10	WASH.			
Designed By	Mizumori, A 06/20				JOB NUMBER 19Y007				
Checked By	Howlett, K 12/21				CONTRACT NO.				
Detailed By	McCarthy, D 10/19								
Bridge Projects Engr.									
Prelim. Plan By									
Architect/Specialist		DATE	REVISION	BY	APP'D				

P.E. STAMP BOX — ANTHONY J. L. MIZUMORI — STATE OF WASHINGTON — 44257 — REGISTERED PROFESSIONAL ENGINEER — SEE SHEET CT9 — DATE:

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX — BRIAN S. ALDRICH — STATE OF WASHINGTON — 37834 — REGISTERED PROFESSIONAL ENGINEER — SEE SHEET CT9 — DATE:

Washington State Department of Transportation

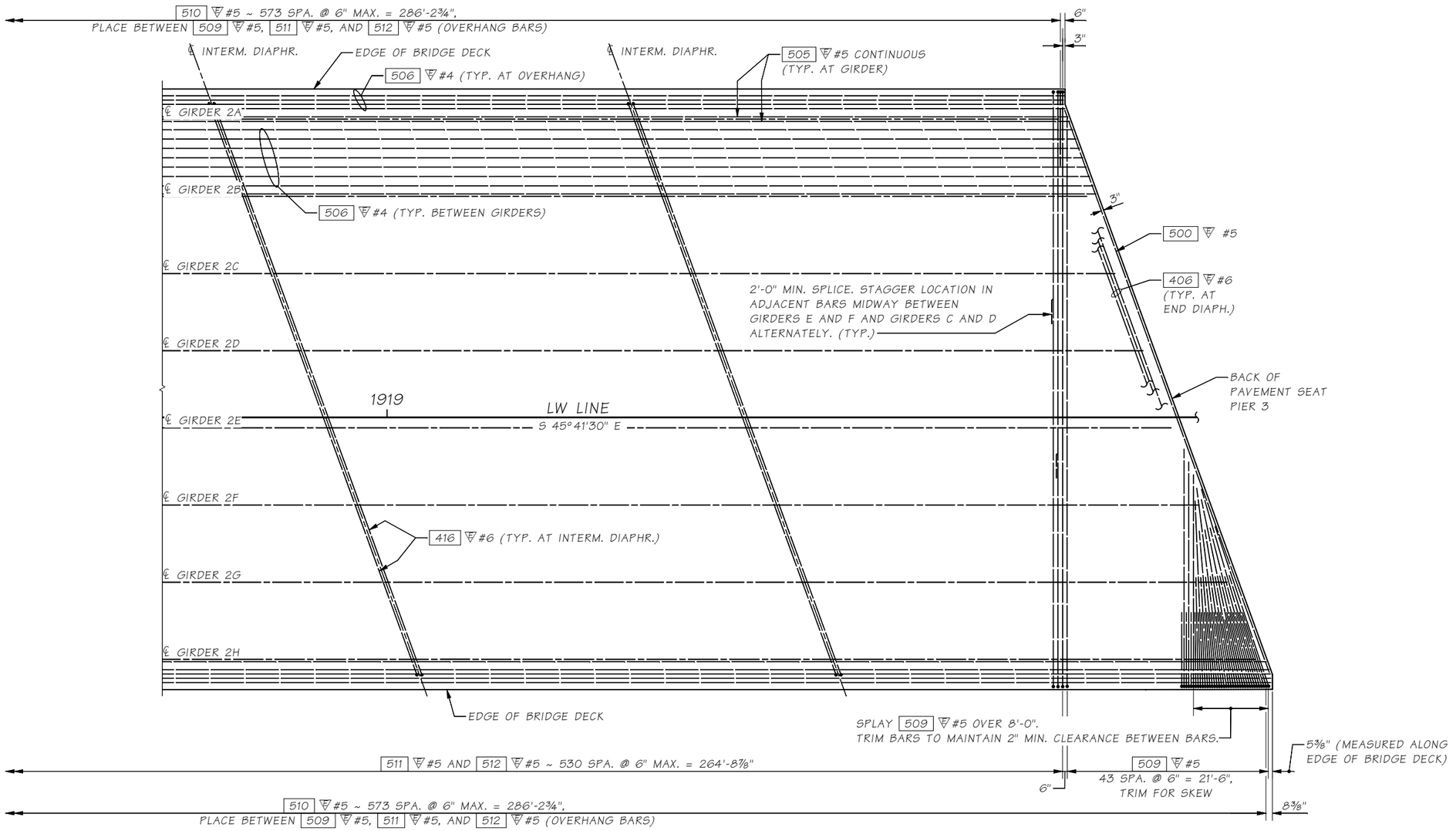
I-90
CABIN CREEK I/C TO W EASTON I/C
PHASE 3 - ADD LANES/WILDLIFE BRIDGES
I-90 WILDLIFE U-XING WB BR. NO. 90/116.7N

BRIDGE DECK REINFORCEMENT PLAN
TOP MAT DETAILS 1 OF 2

BRIDGE SHEET NO. BJ46
SHEET 1577 OF 1783 SHEETS

SR I-90 FILE NO. SHEET BJ46

Mon Jan 31 16:04:10 2022



PLAN
TOP MAT SPAN 2 BRIDGE DECK REINFORCEMENT

NOTES:

1. LOCATION OF REBAR SPLICES AT CONTRACTOR'S OPTION, UNLESS OTHERWISE NOTED.
2. ALL TRANSVERSE BARS ARE NORMAL TO GIRDER CENTERLINES EXCEPT CORNER SPLAYED BARS.
3. MIN. REBAR SPLICE LENGTH UNLESS NOTED OTHERWISE SHALL BE:
   #4 = 2'-0"
   #5 = 2'-0"
   WHEN SPLICING DIFFERENT SIZE OF REBARS, THE MIN. SPLICE LENGTH OF THE SMALLER BAR MAY BE USED.
4. NO MORE THAN 50% OF REBAR SHALL BE SPLICED AT ANY ONE LOCATION UNLESS NOTED OTHERWISE. STAGGER SPLICES AT A MINIMUM OF 3'-0".

SR I-90 FILE NO. ____ SHEET B347

Bridge Design Engr.	Khaleghi, B	M:\X-Team\I-90_WILDLIFE U-XING WB BRIDGE_SCR\window files\SLAB REINF TOP 2.wnd								
Supervisor	Aldrich, BS									
Designed By	Mizumori, A 06/20									
Checked By	Howlett, K 12/21									
Detailed By	Bontemps, W 05/20									
Bridge Projects Engr.										
Prelim. Plan By										
Architect/Specialist		DATE	REVISION	BY	APP'D					

REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
10	WASH.			
JOB NUMBER 19Y007				
CONTRACT NO.				

P.E. STAMP BOX
ANTHONY J. MIZUMORI
STATE OF WASHINGTON
44057
REGISTERED PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE:

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX
ERLIN S. ALDRICH
STATE OF WASHINGTON
37854
REGISTERED PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE:

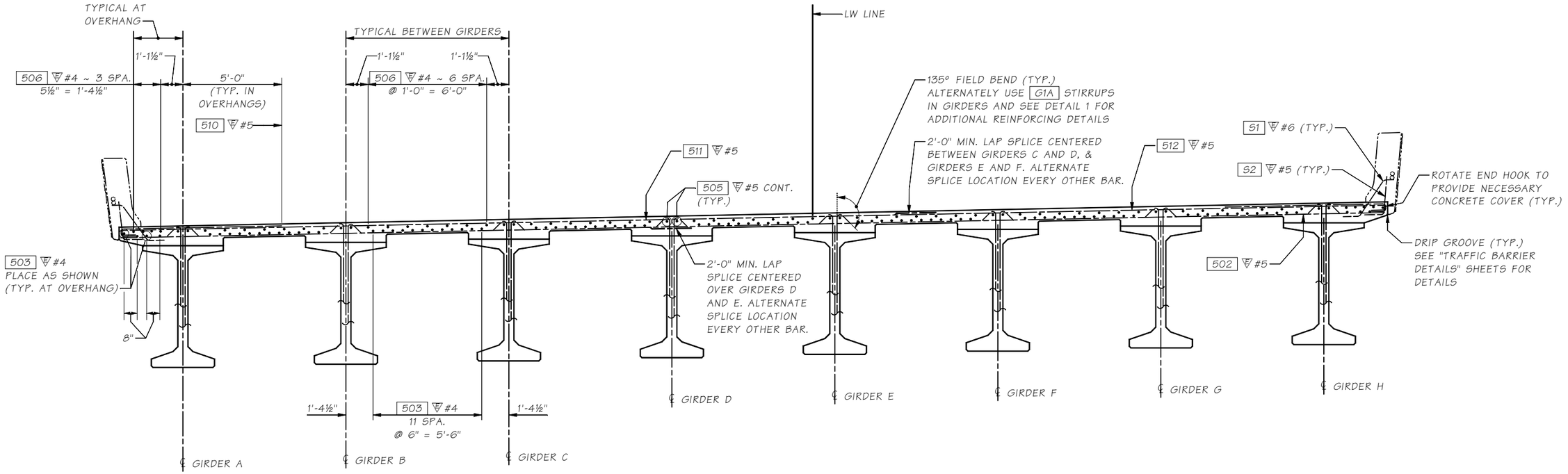
Washington State Department of Transportation

I-90
CABIN CREEK I/C TO W EASTON I/C
PHASE 3 - ADD LANES/WILDLIFE BRIDGES
I-90 WILDLIFE U-XING WB BR. NO. 90/116.7N

BRIDGE DECK REINFORCEMENT PLAN
TOP MAT DETAILS 2 OF 2

BRIDGE SHEET NO. BJ47
SHEET 1578 OF 1783 SHEETS

Mon Jan 31 16:04:11 2022

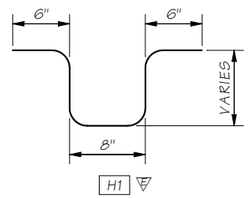


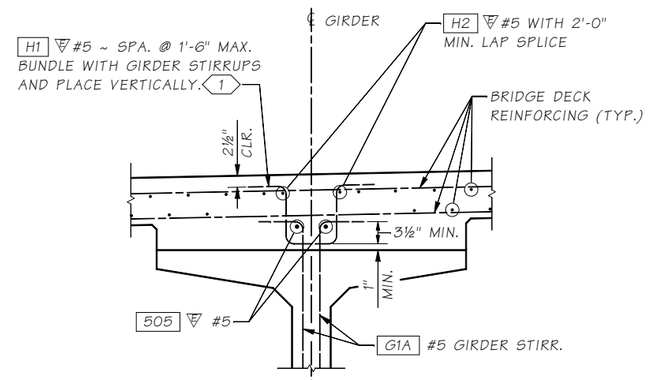
BRIDGE DECK REINFORCEMENT SECTION NEAR END PIERS AND MID-SPANS

TRANSVERSE DIMENSIONS ARE NORMAL TO ℄ GIRDER.

BENDING DIAGRAM

ALL DIMENSIONS ARE OUT TO OUT





DETAIL 1 — BJ49

NOTES:

1. H1 #5 STIRRUP AND H2 #5 MAY BE OMITTED AT LOCATIONS WHERE GIRDER STIRRUPS PROJECT AT LEAST 3" ABOVE THE BOTTOM OF THE TRANSVERSE BAR IN THE BOTTOM MAT OF THE BRIDGE DECK.

SR I-90 FILE NO. SHEET BJ48

Bridge Design Engr.	Khaleghi, B	
Supervisor	Aldrich, BS	
Designed By	Mizumori, A	06/20
Checked By	Howlett, K	12/21
Detailed By	McCarthy, D	10/19
Bridge Projects Engr.		
Prelim. Plan By		
Architect/Specialist		

M:\X-Team\I-90_WILDLIFE U-XING WB BRIDGE_SCR\window files\SLAB REINF SECT 1.wnd

DATE	REVISION	BY	APP'D

REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
10	WASH.			
JOB NUMBER 19Y007				
CONTRACT NO.				

P.E. STAMP BOX — ANTHONY J. I. MIZUMORI — STATE OF WASHINGTON — 14357 — PROFESSIONAL ENGINEER — SEE SHEET CT9 — DATE:

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX — BRIAN S. ALDRICH — STATE OF WASHINGTON — 37824 — PROFESSIONAL ENGINEER — SEE SHEET CT9 — DATE:

Washington State Department of Transportation

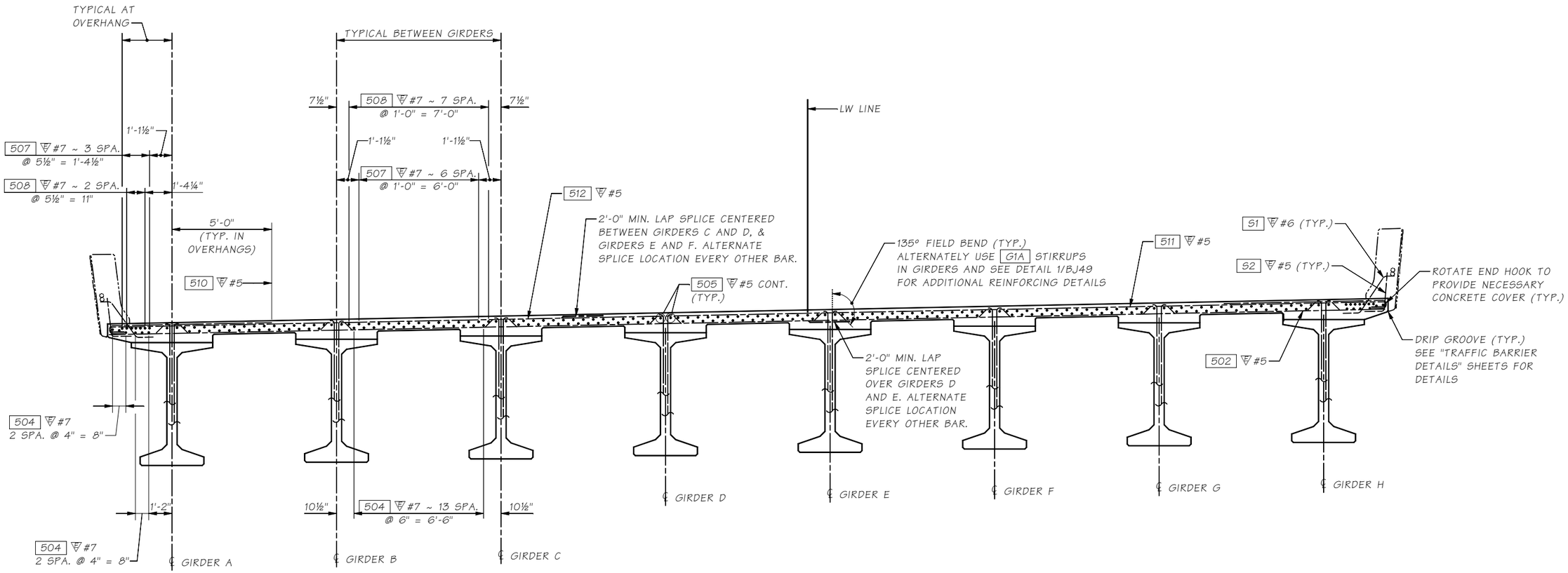
I-90
CABIN CREEK I/C TO W EASTON I/C
PHASE 3 - ADD LANES/WILDLIFE BRIDGES
I-90 WILDLIFE U-XING WB BR. NO. 90/116.7N

BRIDGE DECK REINFORCEMENT SECTION DETAIL 1 OF 2

BRIDGE SHEET NO. BJ48

SHEET 1579 OF 1783 SHEETS

Mon Jan 31 16:04:13 2022



BRIDGE DECK REINFORCEMENT SECTION NEAR PIER 2

TRANSVERSE DIMENSIONS ARE NORMAL TO ℄ GIRDER.

SR I-90 FILE NO. ____ SHEET BJ49

Bridge Design Engr.	Khaleghi, B	M:\X-Team\I-90_WILDLIFE U-XING WB BRIDGE_SCR\window files\SLAB REINF SECT 2.wnd			REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor	Aldrich, BS				10	WASH.			
Designed By	Mizumori, A 06/20				JOB NUMBER 19Y007				
Checked By	Howlett, K 12/21				CONTRACT NO.				
Detailed By	McCarthy, D 10/19								
Bridge Projects Engr.									
Prelim. Plan By									
Architect/Specialist		DATE	REVISION	BY	APP'D				

P.E. STAMP BOX — ANTHONY J. I. MIZUMORI — STATE OF WASHINGTON — 14357 — PROFESSIONAL ENGINEER — SEE SHEET CT9 — DATE:

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX — BRIAN S. ALDRICH — STATE OF WASHINGTON — 37854 — PROFESSIONAL ENGINEER — SEE SHEET CT9 — DATE:

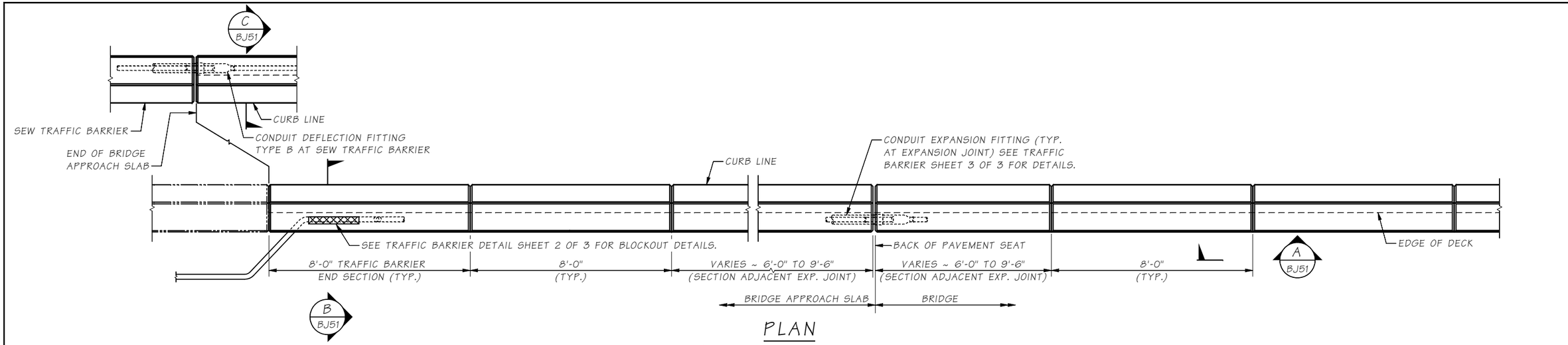
Washington State Department of Transportation

I-90
CABIN CREEK I/C TO W EASTON I/C
PHASE 3 - ADD LANES/WILDLIFE BRIDGES
I-90 WILDLIFE U-XING WB BR. NO. 90/116.7N

BRIDGE DECK REINFORCEMENT SECTION DETAIL 2 OF 2

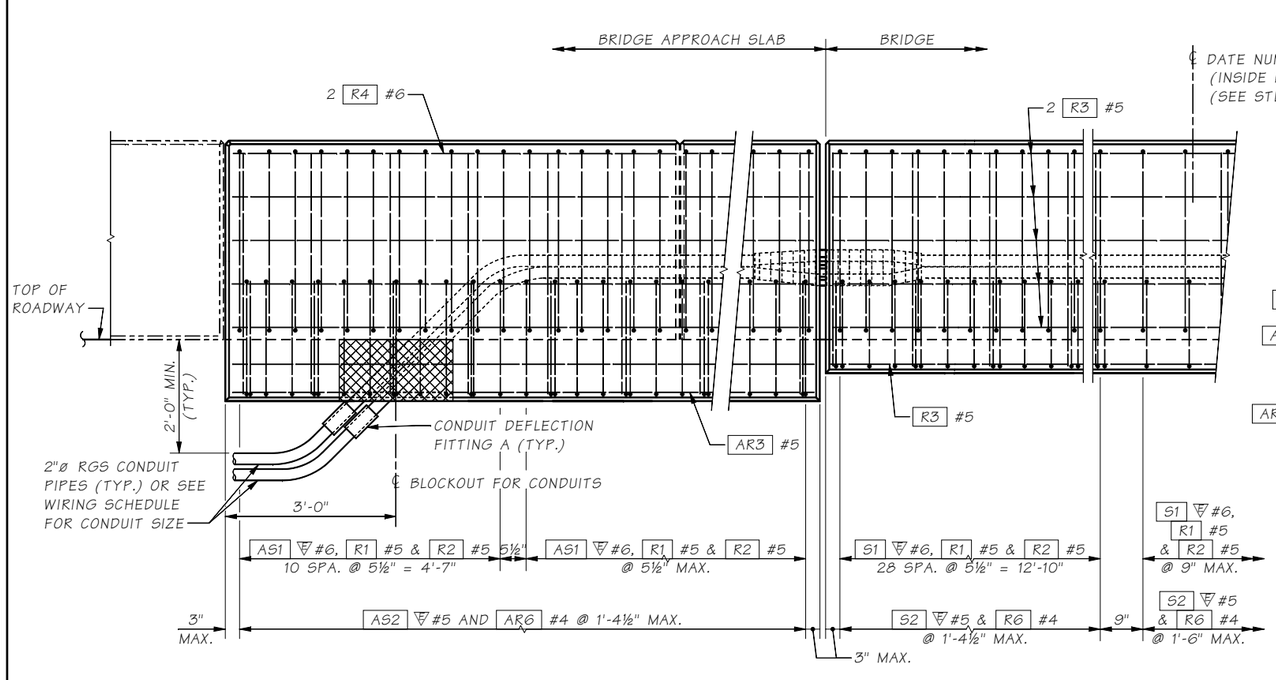
BRIDGE SHEET NO. BJ49
SHEET 1580 OF 1783 SHEETS

Mon Jan 31 16:04:14 2022



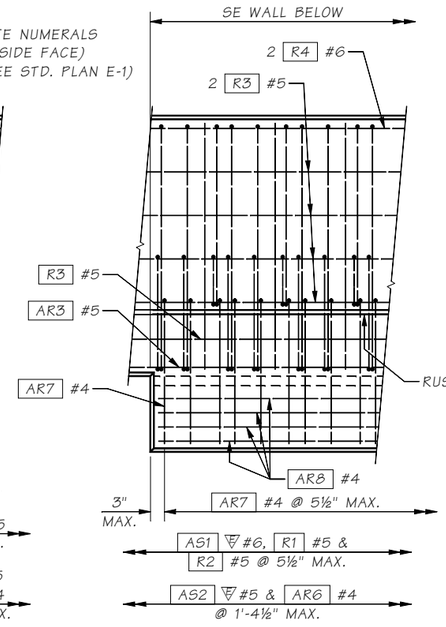
PLAN
TRAFFIC BARRIER

BARRIER CONTINUOUS BETWEEN BRIDGE DECK EXPANSION JOINTS.
CONSTRUCTION JOINTS WITH SHEAR KEYS ARE PERMISSIBLE AT DUMMY JOINT LOCATIONS.
FORM JOINTS BETWEEN DUMMY JOINTS SHALL NOT BE PERMITTED.



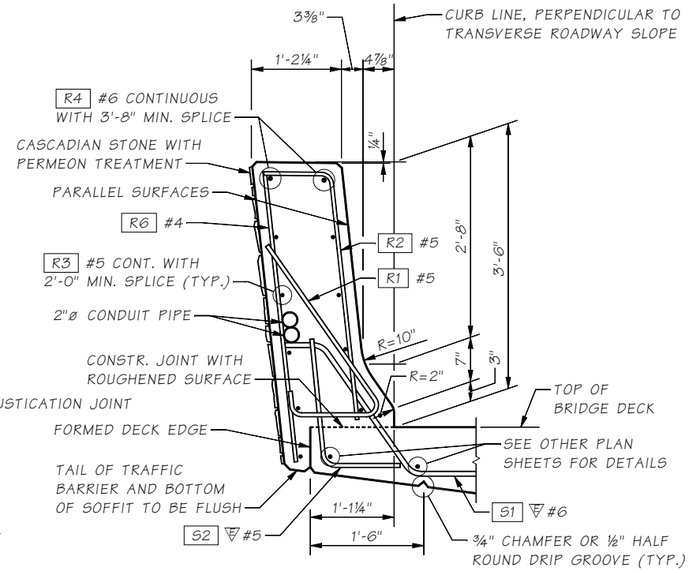
OUTSIDE ELEVATION
END OF TRAFFIC BARRIER

SHOWN WITH BRIDGE APPROACH SLAB



OUTSIDE ELEVATION
TRAFFIC BARRIER ON
BRIDGE APRROACH SLAB AT SE WALL

SHOWN ON BRIDGE APPROACH SLAB



TYPICAL SECTION
TRAFFIC BARRIER

SHOWN ON BRIDGE

SR I-90 FILE NO. SHEET BJ50

Bridge Design Engr.	Khaleghi, B	M:\X-Team\I-90_WILDLIFE U-XING WB BRIDGE_SCR\window files\TRAFFIC BARRIER 1.wnd				REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor	Aldrich, BS					10	WASH.			
Designed By	Mizumori, A 06/20					JOB NUMBER 19Y007				
Checked By	Howlett, K 12/21					CONTRACT NO.				
Detailed By	McCarthy, D 10/19									
Bridge Projects Engr.										
Prelim. Plan By										
Architect/Specialist		DATE	REVISION	BY	APP'D					

P.E. STAMP BOX
ANTHONY J. L. MIZUMORI — STATE OF WASHINGTON — 44057 — PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE:

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX
BRIAN S. ALDRICH — STATE OF WASHINGTON — 37834 — PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE:

Washington State Department of Transportation

I-90
CABIN CREEK I/C TO W EASTON I/C
PHASE 3 - ADD LANES/WILDLIFE BRIDGES
I-90 WILDLIFE U-XING WB BR. NO. 90/116.7N

TRAFFIC BARRIER DETAILS 1 OF 3

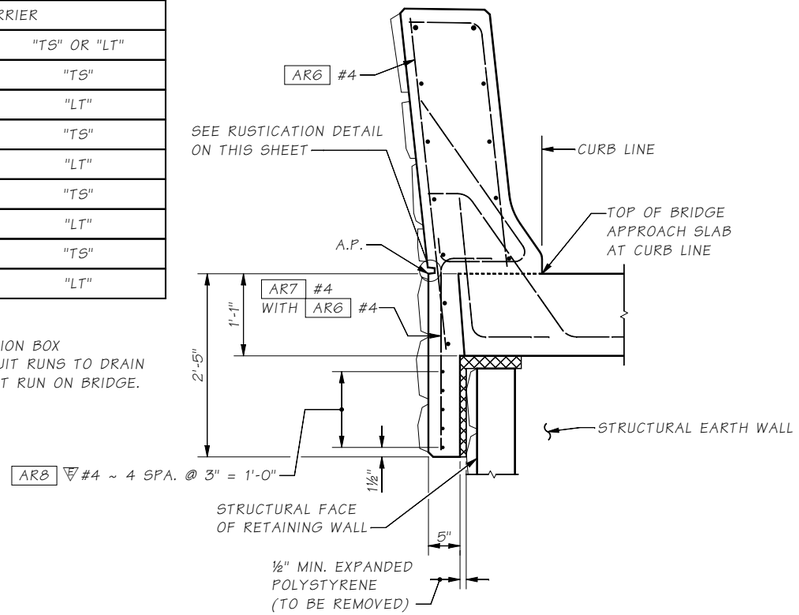
BRIDGE SHEET NO. BJ50
SHEET 1581 OF 1783 SHEETS

Mon Jan 31 16:04:15 2022

JUNCTION BOX LOCATIONS

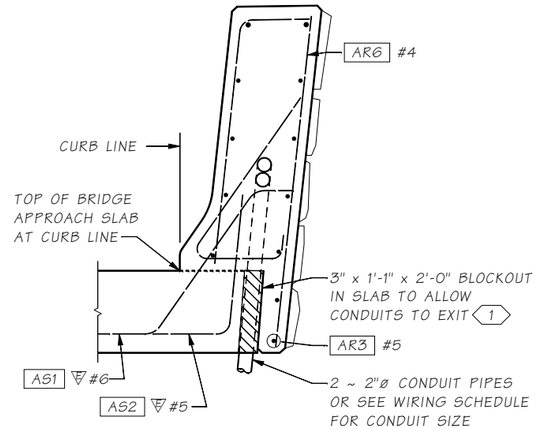
LT. BARRIER		RT. BARRIER	
LW STATION	"TS" OR "LT"	LW STATION	"TS" OR "LT"
		1916+71.50	"TS"
		1916+79.50	"LT"
1917+52.81	"TS"	1917+83.01	"TS"
1917+60.81	"LT"	1917+91.01	"LT"
1918+72.81	"TS"	1918+95.01	"TS"
1918+80.81	"LT"	1919+03.01	"LT"
1919+99.71	"TS"	1920+00.12	"TS"
1920+07.80	"LT"	1920+08.05	"LT"

TS = TRAFFIC SYSTEM
LT = LIGHTING SYSTEM.
JUNCTION BOX LOCATIONS SHOWN ARE APPROXIMATE. CENTER JUNCTION BOX INSTALLATION BETWEEN BARRIER DUMMY JOINTS. INSTALL ALL CONDUIT RUNS TO DRAIN TO A BRIDGE END OR PROVIDE DRAIN AT ALL LOW POINTS IN CONDUIT RUN ON BRIDGE.



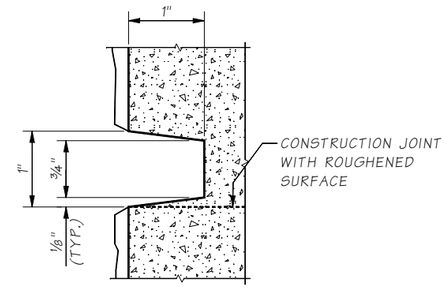
SECTION C
AT BRIDGE APPROACH SLAB OVER SE WALL (BJ50)

FOR DETAILS NOT SHOWN SEE "OUTSIDE ELEVATION TRAFFIC BARRIER ON BRIDGE APPROACH SLAB AT SE WALL" AND "TYPICAL SECTION - TRAFFIC BARRIER"



SECTION B
AT BRIDGE APPROACH SLAB (BJ50)

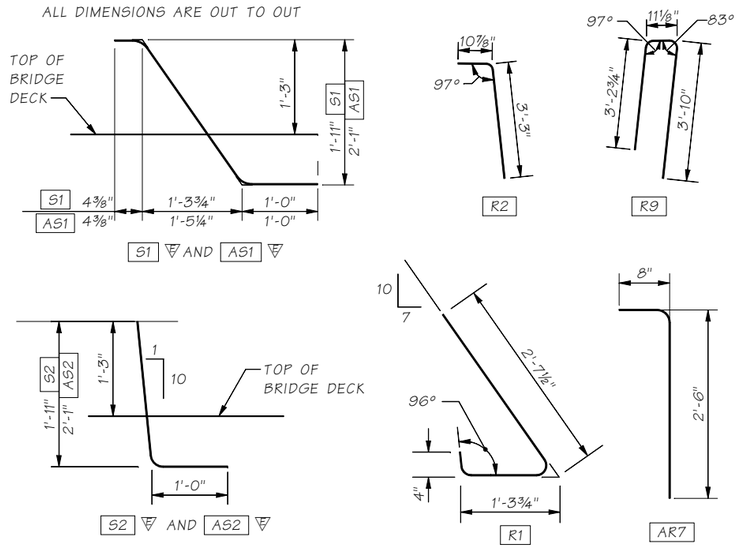
FOR DETAILS NOT SHOWN SEE "OUTSIDE ELEVATION" AND "TYPICAL SECTION - TRAFFIC BARRIER"

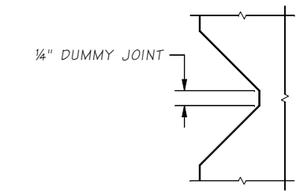


RUSTICATION DETAIL

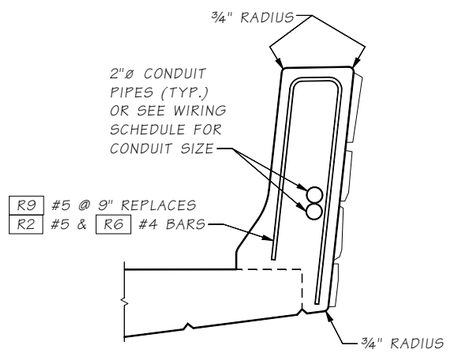
BENDING DIAGRAM

ALL DIMENSIONS ARE OUT TO OUT

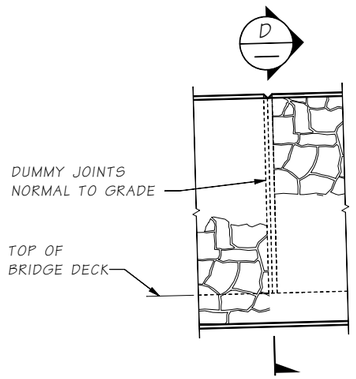




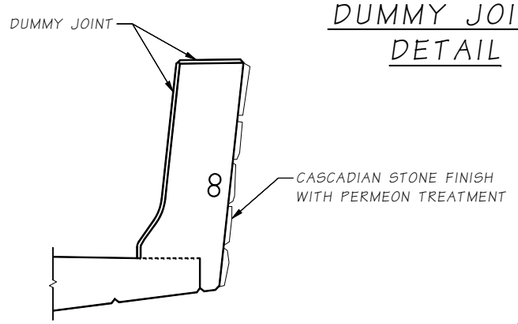
DUMMY JOINT DETAIL



SLIPFORM ALTERNATE



VIEW A
(BJ50)



SECTION D

NOTES:

1. BLOCKOUT WIDTH MAY BE INCREASED TO 6" TO ALLOW CONDUITS OF A LARGER DIAMETER THAN 2" TO EXIT BARRIER OR WALL WITHOUT REBAR STEEL CONFLICT.

SR I-90 FILE NO. SHEET BJ51

Bridge Design Engr.	Khaleghi, B	M:\X-Team\I-90_WILDLIFE U-XING WB BRIDGE_SCR\window files\TRAFFIC BARRIER 2.wnd				REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor	Aldrich, BS					10	WASH.			
Designed By	Mizumori, A 06/20					JOB NUMBER 19Y007				
Checked By	Howlett, K 12/21					CONTRACT NO.				
Detailed By	McCarthy, D 10/19									
Bridge Projects Engr.										
Prelim. Plan By										
Architect/Specialist		DATE	REVISION	BY	APP'D					

P.E. STAMP BOX
ANTHONY J. I. MIZUMORI — STATE OF WASHINGTON — 44257 — PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE:

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX
BRIAN S. ALDRICH — STATE OF WASHINGTON — 37834 — PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE:

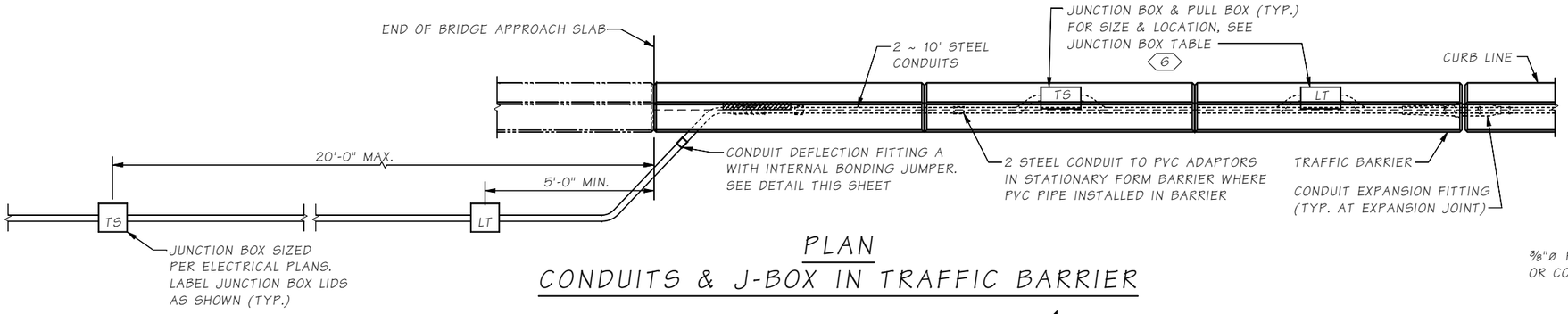
Washington State Department of Transportation

I-90
CABIN CREEK I/C TO W EASTON I/C
PHASE 3 - ADD LANES/WILDLIFE BRIDGES
I-90 WILDLIFE U-XING WB BR. NO. 90/116.7N

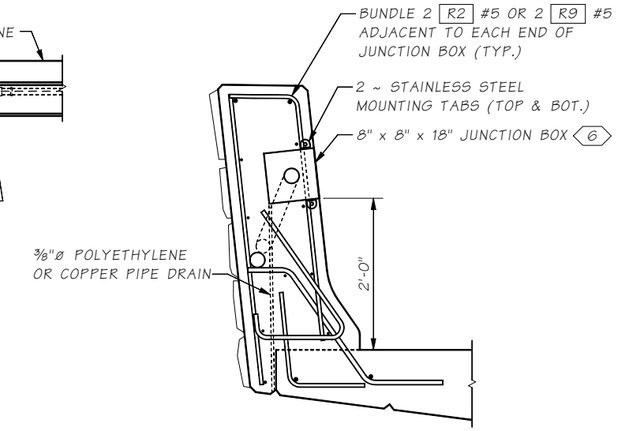
TRAFFIC BARRIER DETAILS 2 OF 3

BRIDGE SHEET NO. BJ51
SHEET 1582 OF 1783 SHEETS

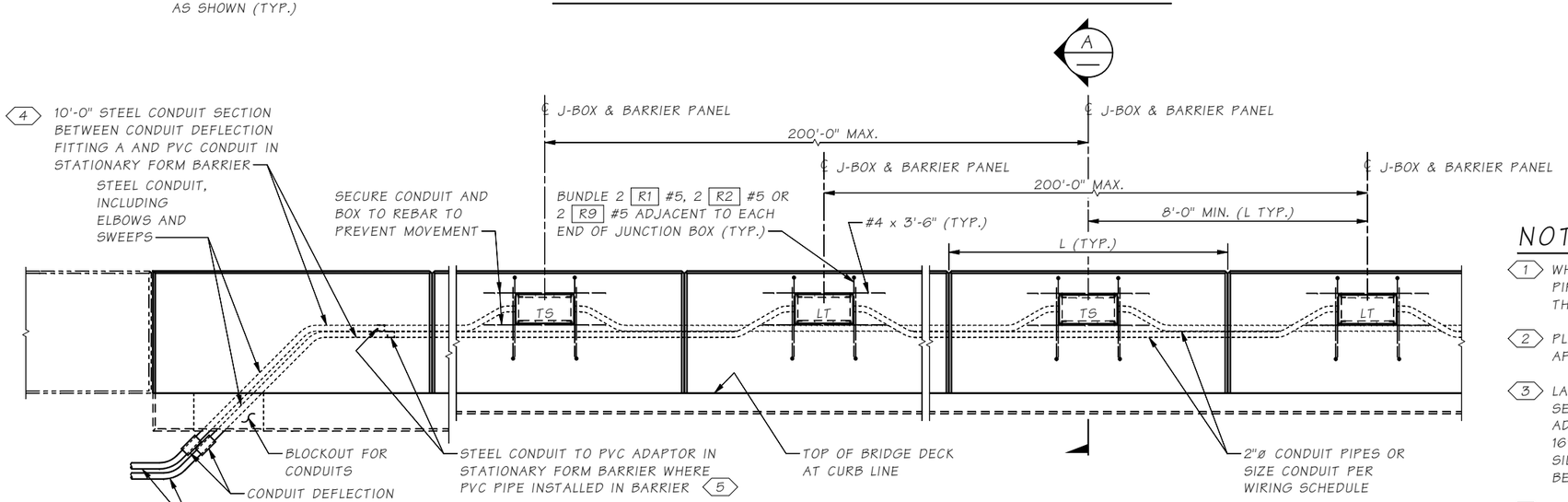
Mon Jan 31 16:04:16 2022



PLAN
CONDUITS & J-BOX IN TRAFFIC BARRIER



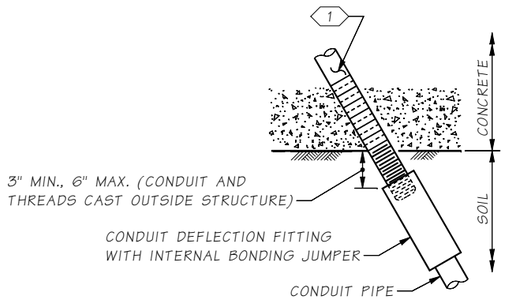
SECTION A—A



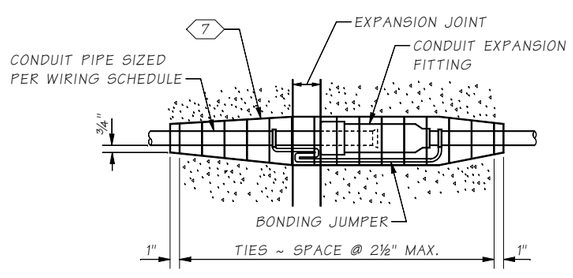
ELEVATION
CONDUITS & J-BOX IN TRAFFIC BARRIER
3

NOTES:

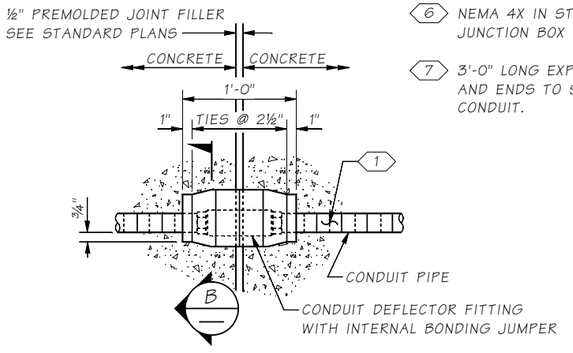
1. WHERE CONDUIT IN A STRUCTURE IS ROUTED ACROSS A JOINT, WRAP STEEL CONDUIT PIPE FOR 1'-0" ON EACH SIDE OF JOINT. PIPE WRAP TAPE SHALL BE 2" WIDE, 20 MIL THICK, AND INSTALLED WITH A MINIMUM OF 1" OVERLAP.
2. PLACE AT CONDUIT PIPE EXIT FROM STRUCTURE AND SHALL BE IN NEUTRAL STATE AFTER INSTALLATION.
3. LABEL JUNCTION BOX COVER IN ACCORDANCE WITH STANDARD SPECIFICATION SECTION 9-29.2(4). ADJACENT JUNCTION BOXES ARE SHOWN CENTERED BETWEEN ADJACENT DUMMY JOINTS. IF THE DISTANCE BETWEEN ADJACENT DUMMY JOINTS IS 16'-0" OR GREATER, PLACE ADJACENT JUNCTION BOXES SYMMETRICALLY ON EITHER SIDE OF THE CENTER OF ONE DUMMY PANEL WHILE MAINTAINING 8'-0" MINIMUM BETWEEN CENTER LINES OF THE JUNCTION BOXES.
4. TERMINATE STEEL CONDUIT IN JUNCTION BOX IF LESS THAN 10-'0" FROM ELBOW OR SWEEP.
5. INSTALL ONLY WHERE CONDUIT IS HORIZONTAL.
6. NEMA 4X IN STATIONARY FORM BARRIER, OR NEMA 3R IN SLIP FORM BARRIER. MOUNT JUNCTION BOX SO COVER IS FLUSH WITH BARRIER, CAN BE RECESSED UP TO 1/8".
7. 3'-0" LONG EXPANDED POLYSTYRENE SLEEVE AROUND CONDUIT. DUCT TAPE SEAMS AND ENDS TO SEAL AND PREVENT CONCRETE FROM BONDING WITH FITTING AND CONDUIT.



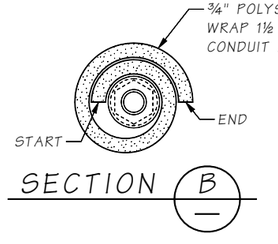
CONDUIT DEFLECTION FITTING A
CONDUIT FITTING - TYPE DX FOR DEFLECTION OF 30° AND ¾" MOVEMENT.
2



CONDUIT EXPANSION FITTING
CONDUIT FITTING - (TYPE AX FOR MOVEMENT OF ± 2") AT BRIDGE EXPANSION JOINTS



CONDUIT DEFLECTION FITTING B
CONDUIT FITTING - TYPE DX FOR DEFLECTION OF 30° AND ¾" MOVEMENT.



SECTION B—B

Bridge Design Engr.	Khaleghi, B		M:\X-Team\I-90_WILDLIFE U-XING WB BRIDGE_SCR\window files\TRAFFIC BARRIER 3.wnd				REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor	Aldrich, BS						10	WASH.			
Designed By	Mizumori, A	06/20					JOB NUMBER 19Y007				
Checked By	Howlett, K	12/21					CONTRACT NO.				
Detailed By	McCarthy, D	10/19									
Bridge Projects Engr.											
Prelim. Plan By											
Architect/Specialist			DATE	REVISION	BY	APP'D					

P.E. STAMP BOX — ANTHONY J. MIZUMORI — STATE OF WASHINGTON — 44057 — REGISTERED PROFESSIONAL ENGINEER
SEE SHEET CT9 DATE:

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX — BRIAN S. ALDRICH — STATE OF WASHINGTON — 37834 — REGISTERED PROFESSIONAL ENGINEER
SEE SHEET CT9 DATE:

Washington State Department of Transportation

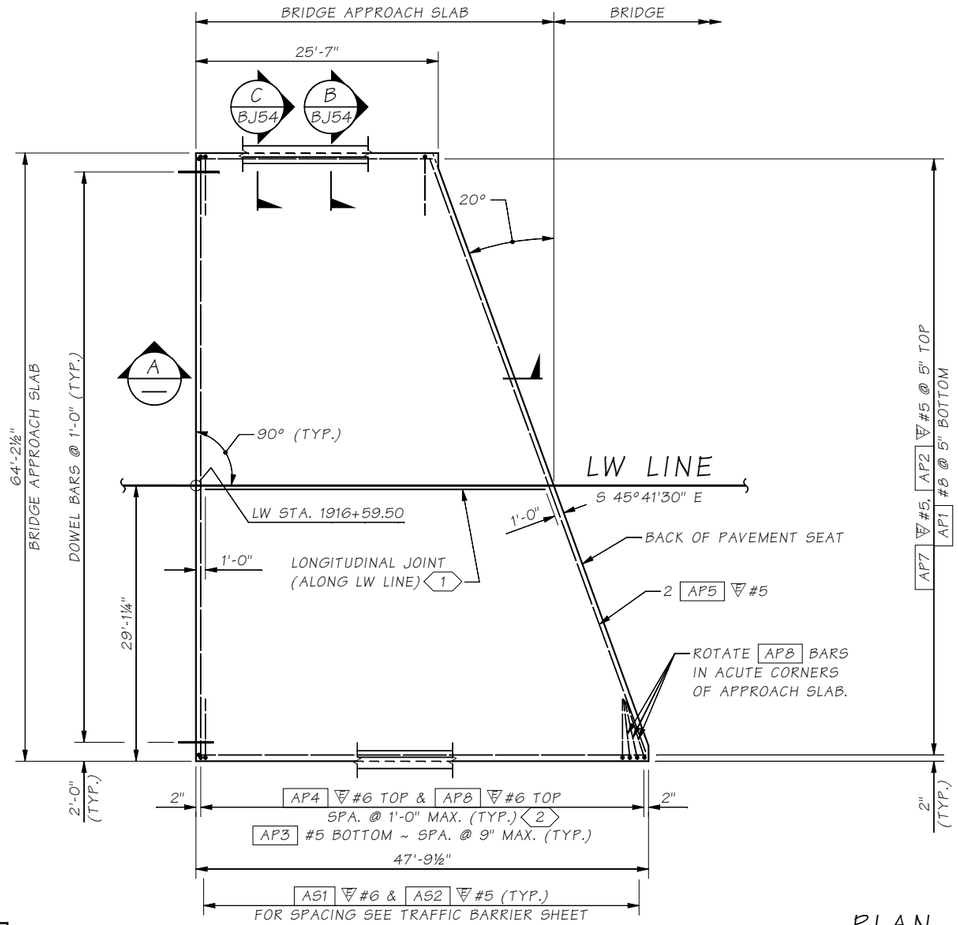
I-90
CABIN CREEK I/C TO W EASTON I/C
PHASE 3 - ADD LANES/WILDLIFE BRIDGES
I-90 WILDLIFE U-XING WB BR. NO. 90/116.7N

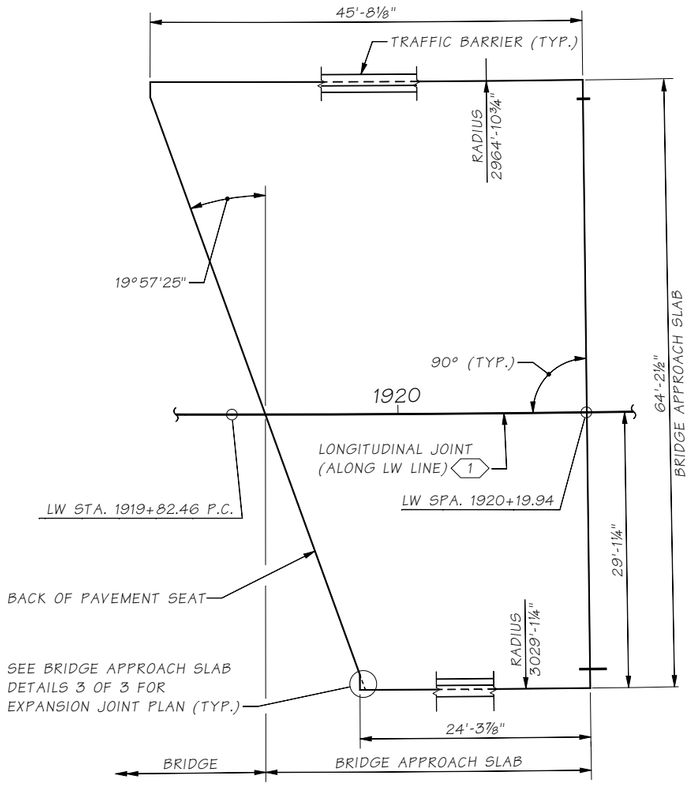
TRAFFIC BARRIER DETAILS 3 OF 3

BRIDGE SHEET NO. BJ52
SHEET 1583 OF 1783 SHEETS

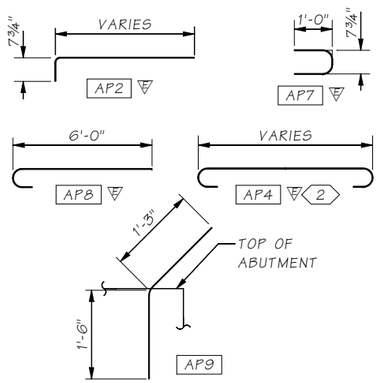
SR I-90 FILE NO. ____ SHEET BJ52

Mon Jan 31 16:04:18 2022





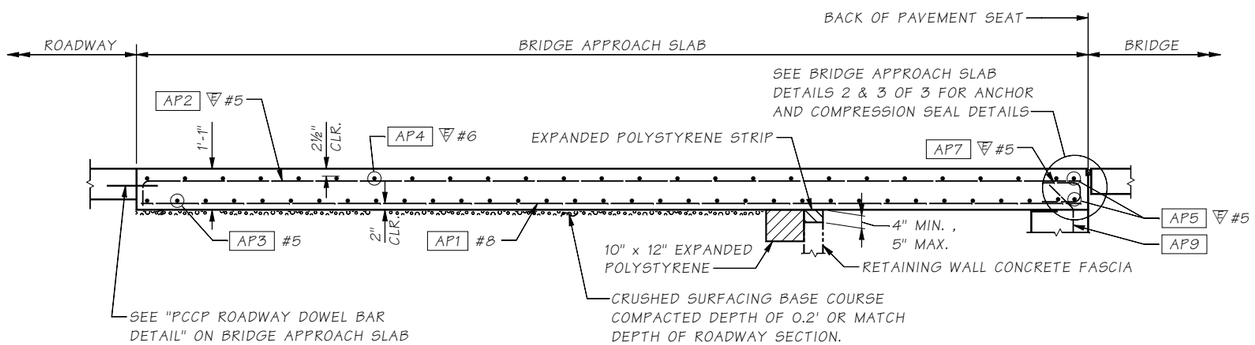
BENDING DIAGRAM



NOTE: ALL DIMENSIONS ARE OUT TO OUT

= EPOXY COATED REINFORCING STEEL

PLAN



SECTION A

GENERAL NOTES:

1. ALL EDGES OF BRIDGE APPROACH SLAB SHALL HAVE ½" RADIUS EXCEPT AT LONGITUDINAL JOINTS.
2. THE MINIMUM LAP SPLICE OF #5 IS 2'-0", #5 IS 2'-6", #6 IS 3'-0", AND #8 IS 3'-3". ALL LAP SPLICES SHALL BE STAGGERED SO THAT NO MORE THAN 50% OF REBAR IS SPLICED AT THE SAME LOCATION. LAP SPLICES SHALL BE LOCATED WITHIN THE MIDDLE HALF OF THE BRIDGE APPROACH SLAB. OPTIONAL SPLICES ARE ALLOWED FOR AP4 #6.
3. FOR TRAFFIC BARRIER DETAILS, INCLUDING ANY BRIDGE APPROACH SLAB BLOCKOUT INFORMATION, SEE TRAFFIC BARRIER SHEETS.

NOTES:

1 LONGITUDINAL JOINTS SHALL BE PLACED ON LANE LINES AND SHALL BE CONSTRUCTED AND SEALED IN ACCORDANCE WITH STD. SPEC. SECTION 5-05.3(8). JOINTS MAY BE EITHER A SAWCUT CRACK CONTROL JOINT OR A CONSTRUCTION JOINT. SAWCUT JOINTS SHALL TERMINATE 1'-0" BEFORE REACHING EDGE OF SLAB AND MUST BE SAW CUT AS SOON AS POSSIBLE AFTER PLACEMENT OF CONCRETE. SEE "LONGITUDINAL JOINT DETAIL" ON BRIDGE APPROACH SLAB DETAILS 2 OF 3.

2 AP4 HOOKS ARE ONLY REQUIRED AT THE TRAFFIC BARRIER EDGE.

SR I-90 FILE NO. SHEET BJ53

Bridge Design Engr.	Khaleghi, B		M:\X-Team\I-90_WILDLIFE U-XING WB BRIDGE_SCR\window files\APPR SLAB 1.wnd			REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor	Aldrich, BS					10	WASH.			
Designed By	Mizumori, A	06/20				JOB NUMBER 19Y007				
Checked By	Howlett, K	12/21				CONTRACT NO.				
Detailed By	McCarthy, D	10/19								
Bridge Projects Engr.										
Prelim. Plan By										
Architect/Specialist			DATE	REVISION	BY	APP'D				

Mon Jan 31 16:04:19 2022

P.E. STAMP BOX
ANTHONY J. I. MIZUMORI
STATE OF WASHINGTON
44357
PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE:

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX
BRIAN S. ALDRICH
STATE OF WASHINGTON
37834
PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE:

Washington State Department of Transportation

I-90
CABIN CREEK I/C TO W EASTON I/C
PHASE 3 - ADD LANES/WILDLIFE BRIDGES
I-90 WILDLIFE U-XING WB BR. NO. 90/116.7N

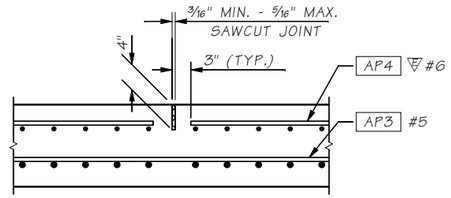
BRIDGE APPROACH SLAB DETAILS 1 OF 3

BRIDGE SHEET NO. BJ53

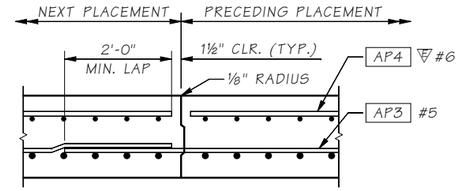
SHEET 1584 OF 1783 SHEETS

PCCP ROADWAY DOWEL BAR DETAIL

PCCP ROADWAY DOWELS SHALL BE INSTALLED PARALLEL TO ROADWAY AND TO EACH OTHER.

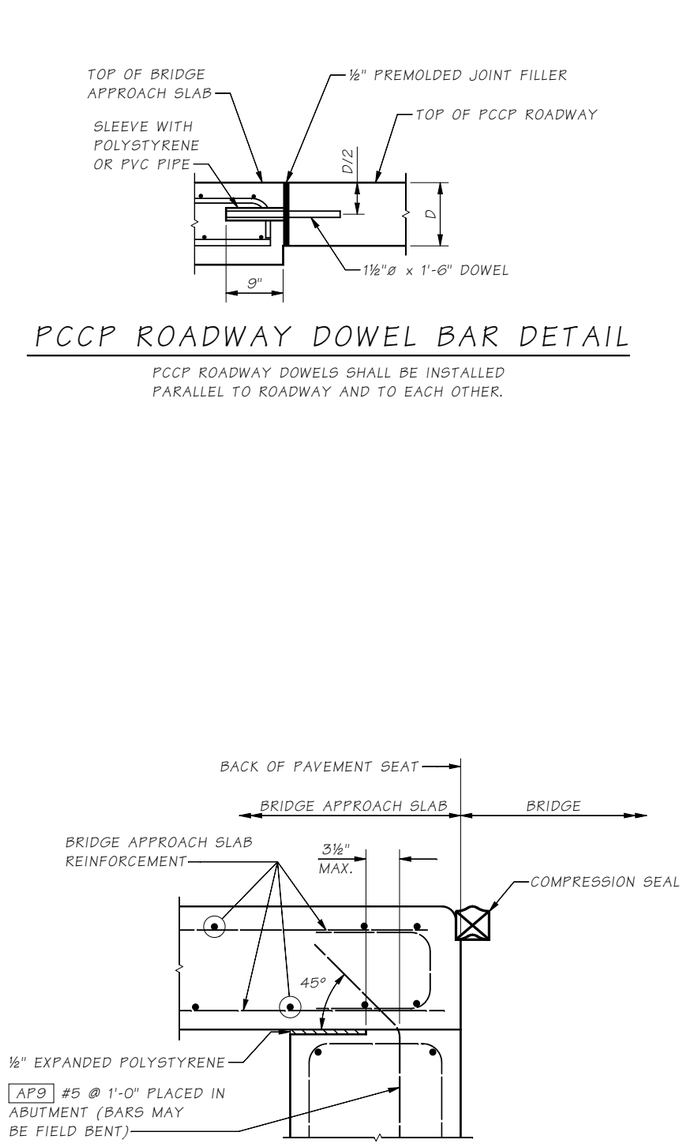


LONGITUDINAL JOINT DETAIL

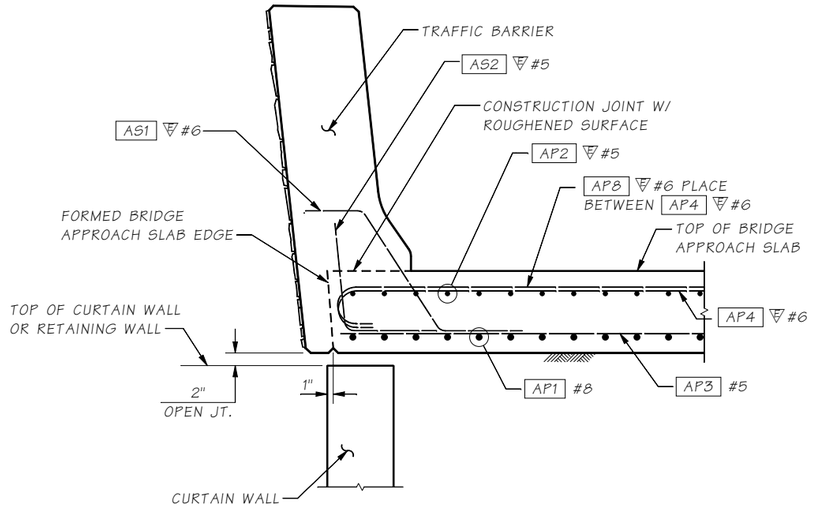


ALTERNATE LONGITUDINAL JOINT DETAIL

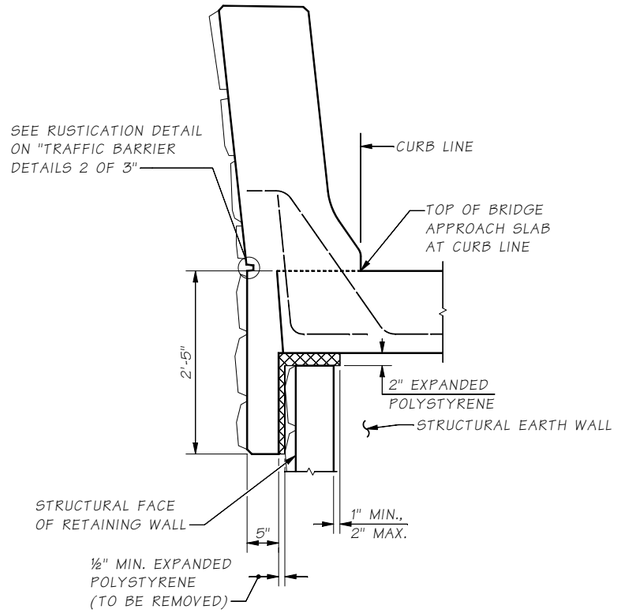
EDGE PRECEDING PLACEMENT ONLY WITH ⅛" RADIUS.



ANCHOR DETAIL



SECTION B
BJ53



SECTION C
AT BRIDGE APPROACH SLAB BJ53

FOR DETAILS NOT SHOWN SEE "OUTSIDE ELEVATION TRAFFIC BARRIER ON BRIDGE APPROACH SLAB AT SE WALL" AND "TYPICAL SECTION - TRAFFIC BARRIER"

SR I-90 FILE NO. SHEET BJ54

Bridge Design Engr.	Khaleghi, B	M:\X-Team\I-90_WILDLIFE U-XING WB BRIDGE_SCR\window files\APPR SLAB 2.wnd	
Supervisor	Aldrich, BS		
Designed By	Mizumori, A 06/20		
Checked By	Howlett, K 12/21		
Detailed By	McCarthy, D 10/19		
Bridge Projects Engr.			
Prelim. Plan By			
Architect/Specialist		DATE / REVISION / BY / APP'D	

REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
10	WASH.			
JOB NUMBER 19Y007				
CONTRACT NO.				

P.E. STAMP BOX — ANTHONY J. I. MIZUMORI — STATE OF WASHINGTON — 44257 — REGISTERED PROFESSIONAL ENGINEER — SEE SHEET CT9 — DATE:

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX — BRIAN S. ALDRICH — STATE OF WASHINGTON — 37834 — REGISTERED PROFESSIONAL ENGINEER — SEE SHEET CT9 — DATE:

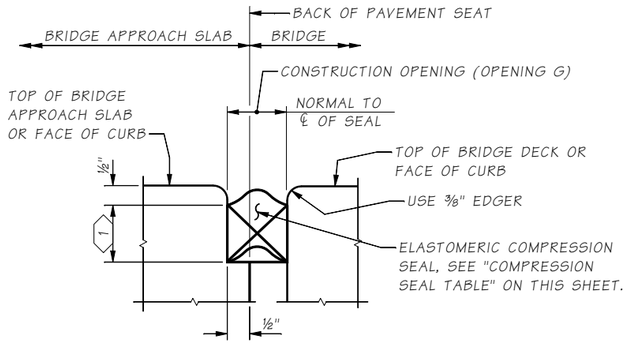
Washington State Department of Transportation

I-90
CABIN CREEK I/C TO W EASTON I/C
PHASE 3 - ADD LANES/WILDLIFE BRIDGES
I-90 WILDLIFE U-XING WB BR. NO. 90/116.7N

BRIDGE APPROACH SLAB DETAILS 2 OF 3

BRIDGE SHEET NO. BJ54
SHEET 1585 OF 1783 SHEETS

Mon Jan 31 16:04:21 2022



COMPRESSION SEAL DETAIL

EXPANSION JOINT AT BACK OF PAVEMENT SEAT

NOTES:

1. FULLY COMPRESSED SEAL HEIGHT, SEAL HEIGHT VARIES WITH MANUFACTURER, VERIFY PRIOR TO SLAB CONSTRUCTION.

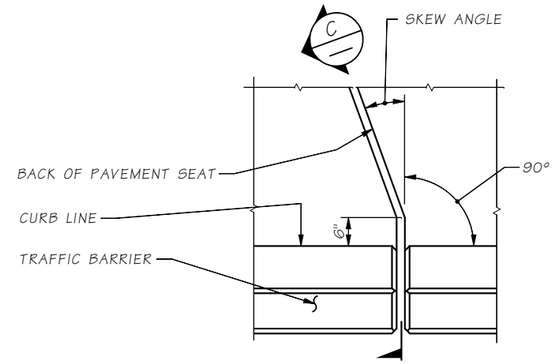
COMPRESSION SEAL TABLE

D.S. BROWN		WATSON BOWMAN ACME	
SEAL	WIDTH	SEAL	WIDTH
CV-3500	3½	WA-350	3½

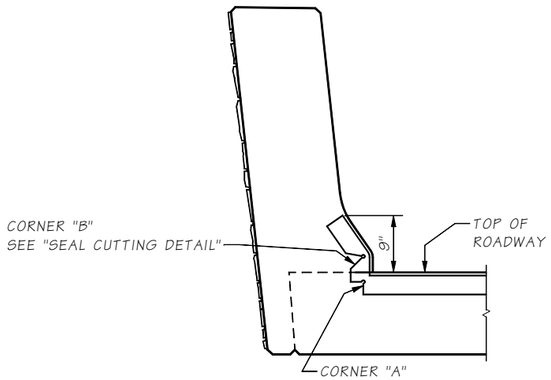
TESTING SHALL BE PER ASTM D 2628 PRIOR TO USE.

OPENING G (NORMAL TO JOINT)		
@ 40°F	@ 64°F	@ 80°F
2⅜"	2⅛"	2"

SEAL CUTTING DETAIL



PLAN
EXPANSION JOINT



SECTION C

SR I-90 FILE NO. ____ SHEET BJ55

Bridge Design Engr.	Khaleghi, B	M:\X-Team\I-90_WILDLIFE U-XING WB BRIDGE_SCR\window files\APPR SLAB 3.wnd			REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor	Aldrich, BS				10	WASH.			
Designed By	Mizumori, A 06/20				JOB NUMBER 19Y007				
Checked By	Howlett, K 12/21				CONTRACT NO.				
Detailed By	McCarthy, D 10/19								
Bridge Projects Engr.									
Prelim. Plan By									
Architect/Specialist		DATE	REVISION	BY	APP'D				

P.E. STAMP BOX — ANTHONY J. I. MIZUMORI, STATE OF WASHINGTON, 44207, PROFESSIONAL ENGINEER, STRUCTURAL ENGINEER — SEE SHEET CT9 — DATE:

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX — BRIAN S. ALDRICH, STATE OF WASHINGTON, 37834, PROFESSIONAL ENGINEER, STRUCTURAL ENGINEER — SEE SHEET CT9 — DATE:

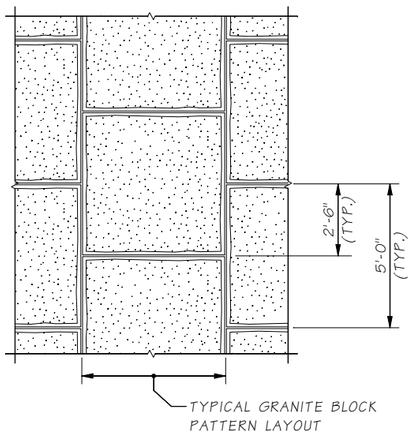
Washington State Department of Transportation

I-90
CABIN CREEK I/C TO W EASTON I/C
PHASE 3 - ADD LANES/WILDLIFE BRIDGES
I-90 WILDLIFE U-XING WB BR. NO. 90/116.7N

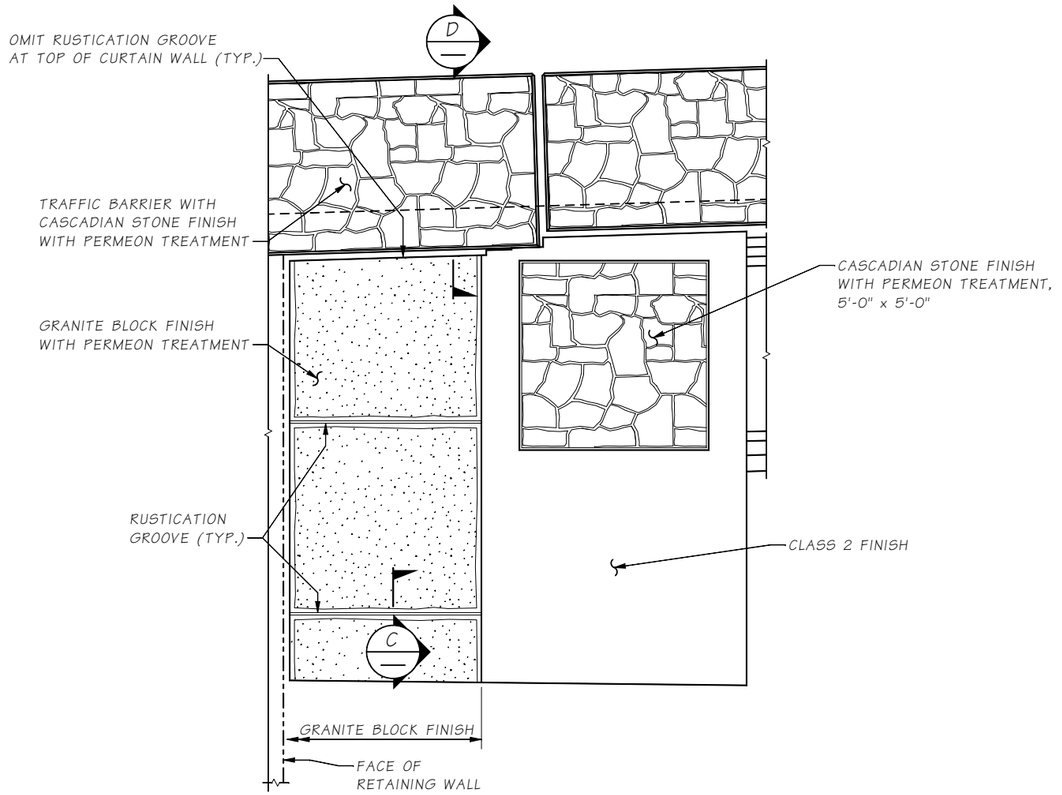
BRIDGE APPROACH SLAB DETAILS 3 OF 3

BRIDGE SHEET NO. BJ55
SHEET 1586 OF 1783 SHEETS

Mon Jan 31 16:04:22 2022

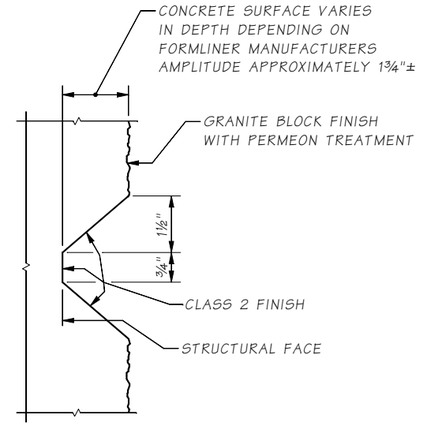


RUSTICATION PANEL PATTERN



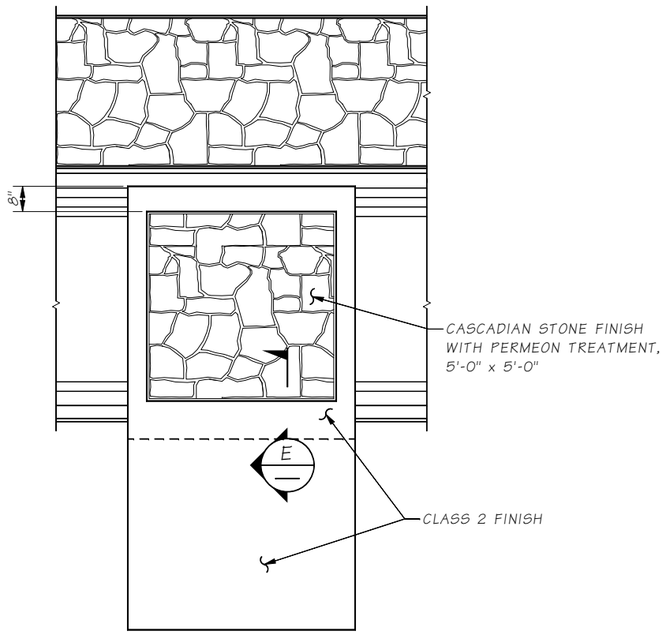
TYPICAL GRANITE BLOCK PATTERN LAYOUT

SHOWING CAST-IN-PLACE ABUTMENT AND CURTAIN WALL. PIER 3 LEFT SHOWN.

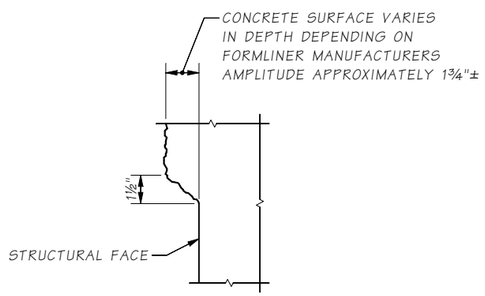


SECTION C

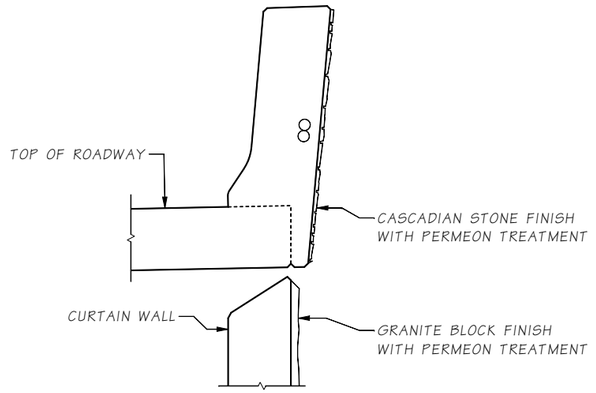
CAST-IN-PLACE RUSTICATION GROOVE TYPICAL FOR VERTICAL AND HORIZONTAL LOCATIONS



CROSSBEAM END VIEW



SECTION E



SECTION D

SR I-90 FILE NO. ____ SHEET BJ56

Bridge Design Engr.	Khaleghi, B	M:\X-Team\I-90_WILDLIFE U-XING WB BRIDGE_SCR\window files\ARCH TREATMENT.wnd				REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor	Aldrich, BS					10	WASH.			
Designed By	Rochon, MJ 01/22					JOB NUMBER 19Y007				
Checked By	Mizumori, A 01/22					CONTRACT NO.				
Detailed By	McCarthy, D 10/19									
Bridge Projects Engr.										
Prelim. Plan By										
Architect/Specialist		DATE	REVISION	BY	APP'D					

P.E. STAMP BOX — SEE SHEET CT9 — DATE:

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX — MATTHEW J. ROCHON, STATE OF WASHINGTON, 40414, REGISTERED PROFESSIONAL ENGINEER — SEE SHEET CT9 — DATE:

Washington State Department of Transportation

I-90
CABIN CREEK I/C TO W EASTON I/C
PHASE 3 - ADD LANES/WILDLIFE BRIDGES
I-90 WILDLIFE U-XING WB BR. NO. 90/116.7N

ARCHITECTURAL TREATMENT

BRIDGE SHEET NO. BJ56

SHEET 1587 OF 1783 SHEETS

Mon Jan 31 16:04:23 2022

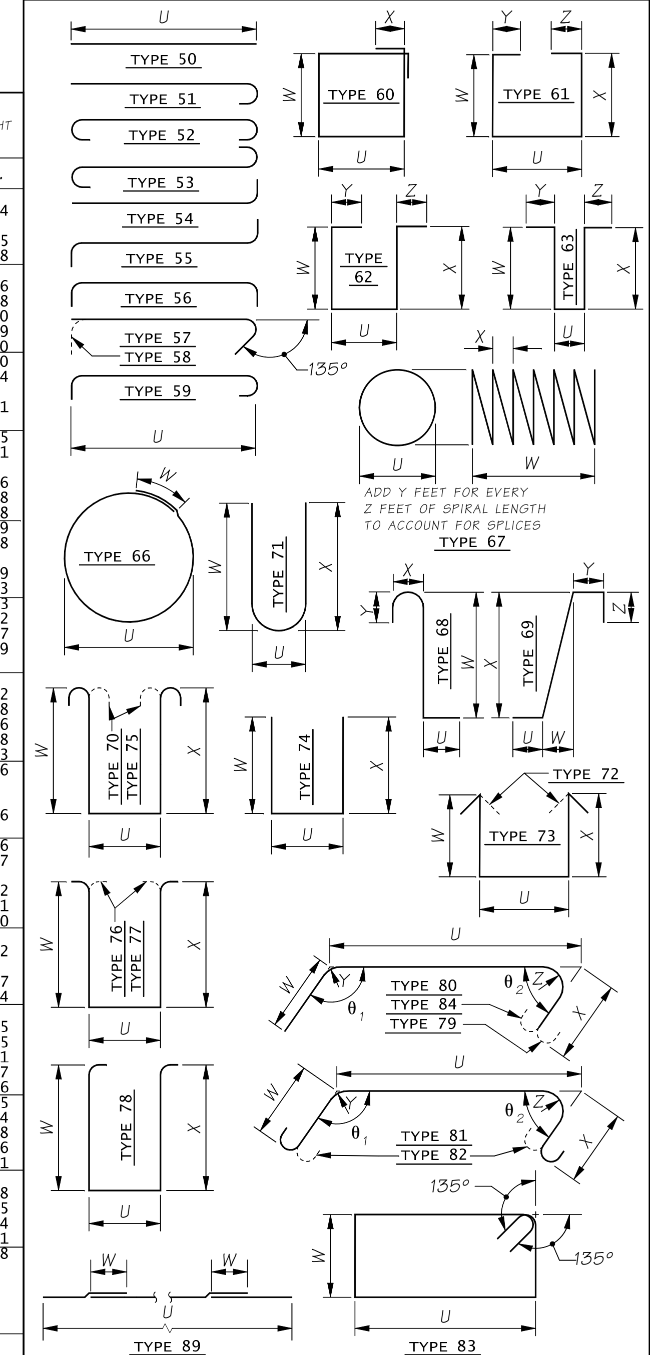
S = Bar is included in substructure quantities.
L = Lump sum quantity.
T = Transverse or S = Seismic
E = Bar is to be epoxy coated.
V = Bar dimensions vary between dimensions shown on this line and the following line.

MARK NO.	LOCATION	SIZE	NO REQ'D	BEND TYPE	TIE OR STIR.	LUMP SUM	SUBSTR.	EPOXY COAT	VARIES	NO. EACH	U Ft.	U In.	W Ft.	W In.	X Ft.	X In.	Y Ft.	Y In.	Z Ft.	Z In.	θ1 Deg.	θ2 Deg.	LENGTH Ft.	LENGTH In.	WEIGHT Lbs.
	PIER 1																								
100	Column A Longit	8	16	50		S					28	4.0											28	4	1210
100	Column B Longit	8	16	50		S					29	5.0											29	5	1257
100	Column C Longit	8	16	50		S					27	7.0											27	7	1178
101	Column Hoop	6	180	66		S					3	8.0	0	0.0									11	4	3061
110	XB Stirrup 1	6	56	72	T	S					5	6.0	4	8.0	0	0.0							10	8	896
111	XB Stirrup 2	6	74	72	T	S					5	8.0	4	8.0	4	8.0							15	12	1775
112	XB Stirrup 3	6	104	58	T	S					4	8.0											6	2	961
113	XB Bottom Longit	10	20	50		S			V	10	42	0.0											42	0	2926
											26	0.0											26	0	
114	XB Side Longit	6	20	50		S			V	10	42	0.0											42	0	1021
											26	0.0											26	0	
115	XB Joint Longit	10	24	50		S					20	0.0											20	0	2065
116	XB Top Longit	10	40	50		S			V	20	42	0.0											42	0	5852
											26	0.0											26	0	
117	XB Joint Tie	6	36	58	T	S					5	8.0											7	2	387
118	XB Top Tie	6	102	58	T	S					5	8.0											7	2	1096
119	Girder Stop	4	21	74	T	S					4	11.0	2	6.0	2	6.0							9	9	137
120	Girder Stop	4	49	74	T	S					1	9.0	2	4.0	2	4.0							6	3	204
121	Backwall Vert	5	196	50		S					8	0.0											8	0	1635
122	Backwall Horiz	5	32	50		S			V	16	42	0.0											42	0	1177
											28	6.0											28	6	
123	Backwall Tie	4	340	58	T	S					1	3.0											1	11	434
124	Backwall Top Tie	5	98	74	T	S					1	2.0	1	6.0	1	6.0							3	11	404
130	Left CW Int Vert	5	6	50		S					8	0.0											8	0	50
131	Left WW Int Vert	5	8	50		S			V	1	10	6.0											10	6	89
											10	9.0											10	9	
132	Left CW Ext Vert	5	6	50		S			V	1	11	3.0											11	3	71
											11	5.0											11	5	
133	Left CW Ext Vert	5	3	50		S					11	4.0											11	4	35
134	Left WW Ext Vert	5	9	50		S			V	1	11	1.0											11	1	106
											11	5.0											11	5	
135	Left CW Int Horiz	5	8	50		S					6	0.0											6	0	50
136	Left WW Int Horiz	5	16	50		S					6	8.0											6	8	111
137	Left WW Fillet Horiz	5	16	50		S					6	3.0											6	3	104
138	Left WW Ext Horiz	5	17	50		S					11	8.0											11	8	207
139	Left CW Top Horiz	5	2	50		S					4	3.0											4	3	9
140	Right CW Int Vert	5	7	50		S					8	0.0											8	0	58
141	Right WW Int Vert	5	7	50		S			V	1	10	9.0											10	9	78
											10	6.0											10	6	
142	Right CW Ext Vert	5	7	50		S			V	1	11	6.0											11	6	83
											11	3.0											11	3	
143	Right CW Ext Vert	5	3	50		S					11	2.0											11	2	35
144	Right WW Ext Vert	5	7	50		S			V	1	11	6.0											11	6	83
											11	3.0											11	3	
145	Right CW Int Horiz	5	8	50		S					6	0.0											6	0	50
146	Right WW Int Horiz	5	16	50		S					6	8.0											6	8	111
147	Right WW Fillet Horiz	5	16	50		S					4	6.0											4	6	75
148	Right WW Ext Horiz	5	17	50		S					11	8.0											11	8	207
149	Right CW Top Horiz	5	2	50		S					5	0.0											5	0	10
	PIER 2																								
200	Column A Longit	8	16	50		S					41	9.0											41	9	1784
200	Column B Longit	8	16	50		S					41	10.0											41	10	1787
200	Column C Longit	8	16	50		S					41	11.0											41	11	1791
201	Column Hoop	6	222	66		S					3	8.0	0	0.0									11	4	3776
210	XB Stirrup 1	6	48	72	T	S					5	0.0	3	8.0	0	0.0							9	2	660
211	XB Stirrup 2	6	58	72	T	S					5	8.0	3	8.0	3	8.0							13	12	1217
212	XB Stirrup 3	6	72	58	T	S					3	8.0											5	2	557
213	XB Bot Longit	10	24	50	T	S			V	12	38	8.0											38	8	3374
											26	8.0											26	8	
214	XB Side Longit	5	20	50	T	S			V	10	38	8.0											38	8	681
											26	8.0											26	8	
215	XB End Tie	5	14	80	T	S					5	10.5	1	6.0	1	6.0	0	3.0	0	3.0	70	110	8	6	124
216	XB Top Longit	10	24	50		S			V	12	38	10.0											38	10	3391
											26	10.0											26	10	
217	XB Top Tie	6	82	58	T	S					5	8.0											7	2	881
218	Diaph Stirrup	6	168	58	T	S			V	21	10	10.5											12	4	3092
											10	8.0											12	2	
219	Diaph End Stirrup	6	14	54	T	S			V	2	10	10.5											11	9	244
											10	8.0											11	6	
	PIER 3																								
300	Column A Longit	8	24	50		S					23	2.0											23	2	1485
300	Column B Longit	8	24	50		S					24	0.0											24	0	1538
300	Column C Longit	8	24	50		S					24	9.0											24	9	1586
301	Column Hoop	6	227	66		S					2	8.0	0	0.0									8	2	2789
310	XB Stirrup 1	6	56	72	T	S					5	6.0	4	8.0	0	0.0							10	8	896
311	XB Stirrup 2	6	74	72	T	S					5	8.0	4	8.0	4	8.0							15	12	1775
312	XB Stirrup 3	6	104	58	T	S					4	8.0											6	2	961
313	XB Bottom Longit	10	20	50		S			V	10	41	11.0											41	11	2919
											25	11.0											25	11	
314	XB Side Longit	6	20	50		S			V	10	41	11.0											41	11	1019
											25	11.0											25	11	
315	XB Joint Longit	10	24	50		S					20	0.0											20	0	2065
316	XB Top Longit	10	40	50		S			V	20	41	11.0											41	11	5838
											25	11.0											25	11	
317	XB Joint Tie	6	36	58	T	S					5	8.0											7	2	387
318	XB Top Tie	6	102	58	T	S					5	8.0											7	2	1096
319	Girder Stop	4	21	74	T	S					4	11.0	2	6.0	2	6.0							9	9	137
320	Girder Stop	4	42	74	T	S					1	8.0	2	4.0	2	4.0							6	2	173
321	Backwall Vert	5	196	50		S					8	0.0											8	0	1635
322	Backwall Horiz	5	32	50		S			V	16	41	11.0											41	11	1174
											28	5.0											28	5	
323	Backwall Tie	4	340	58	T	S					1	3.0											1	11	434
324	Backwall Top Tie	5	98	74	T	S					1	2.0	1	6.0	1	6.0							3	11	404
330	Left CW Int Vert	5	7	50		S					8	0.0											8	0	58
331	Left WW Int Vert	5	7	50		S			V	1	10	3.0											10	3	77
											10	10.0											10	10	
332	Left CW Ext Vert	5	7	50		S			V	1	11	8.0											11	8	84
											11	4.0											11	4	
333	Left CW Ext Vert	5	3	50		S					11	4.0											11	4	35
334	Left WW Ext Vert	5	7	50		S			V	1	10	9.0											10	9	78
											10	6.0											10	6	
335	Left CW Int Horiz	5	9	50		S					6	0.0											6	0	56
336	Left WW Int Horiz	5	17	50		S					6	8.0											6	8	118
337	Left WW Fillet Horiz	5	17	50		S					4	6.0											4	6	80
338	Left WW Ext Horiz	5	18	50		S					11	8.0											11	8	219
339	Left CW Top Horiz	5	2	50		S					4	8.0											4	8	10
340	Right CW Int Vert	5	6	50		S					8	0.0											8	0	50
341	Right WW Int Vert	5	8	50		S			V	1	10	3.0											10	3	84
											10	0.0											10	0	
342	Right CW Ext Vert	5	6	50		S			V	1	11	6.0											11	6	71
											11	3.0											11	3	
343	Right CW Ext Vert	5	3	50		S					11	2.0											11	2	35
344	Right WW Ext Vert	5	9	50		S			V	1	10	11.0											10	11	101
											10	7.0											10	7	
345	Right CW Int Horiz	5	9	50		S					6	0.0											6	0	56
346	Right WW Int Horiz	5	17	50		S					6	8.0											6	8	118
347	Right WW Fillet Horiz	5	17	50		S					6	8.0											6	8	118
348	Right WW Ext Horiz	5	18	50		S					11	8.0											11	8	219
349	Right CW Top Horiz	5	2	50		S					3	10.0											3	10	8
	END DIAPHRAGMS																								
401	Stirrup	4	126	74	T						0	8.0	6	0.5	6	0.5							12	7	1059
402	Stirrup	4	56	74	T						0	10.0	4	3.0	4	3.0							9	2	343
403	Bottom	7	4	89							55	5.0	2	7.0									55	5	453
404	Horiz	4	112	50							7	11.0											7	11	592
405	Top	7	2	89							55	5.0	3	7.0									55	5	227
406	Deck Transv	6	12	51			E		V	6	32	2.0											32	10	619
											35	2.0											35	10	
	INTERMEDIATE DIAPHRAGMS																								
411	Stirrup	4	252	74	T						0	4.0	4	8.5	4	8.5							9	7	1612
412	Stirrup	4	112	74	T						0	4.0	2	11.0	2	11.0							5	12	448
413	Bottom	7	8	50							55	5.0											55	5	906
414	Horiz	4	168	50							7	11.0											7	11	888
415	Top	7	4	50							55	5.0											55	5	453
416	Deck Transv	6	16	51			E		V	8	32	2.0											32	10	826
											35	2.0											35	10	
	PIER DIAPHRAGM																								
421	Horiz Int	5	24	50					V	12	39	0.0											39	0	826
											27	0.0											27	0	
422	Horiz Ext	5	84	50							7	10.0											7	10	686
423	Horiz End	5	12	80					V	2	5	10.5	1	9.0	1	9.0	0	3.0	0	3.0	70	110	9	0	117
											5	10.5	2	1.0	2	1.0	0	3.0	0	3.0	70	110	9	8	
424	Vert at Girder	5	64	50							4	8.0											4	8	312
425	Cross Tie	6	210	58	T						6	0.0											7	6	2361
426	Longit Top	10	20	89					V	10	39	0.0	0	0.0									39	0	2840
											27	0.0	0	0.0									27	0	
427	Top Tie	6	42	58	T						6	0.0											7	6	472
	BRIDGE DECK																								
500	Edge	5	4	89			E				64	6.0	2	0.0									66	6	277
501	Bot Transv End	5	76	50			E		V	2	1	8.0											1	8	2444
											60	0.0											60	0	
502	Bot Transv	5	453	89			E				63	10.0	2	0.0									65	10	31105
503	Bot Longit - Span 1	4	92	89			E				141	10.0	2	0.0									147	10	9085
503	Bot Longit - Span 2	4	92	89			E				131	10.0	2	0.0									137	10	8471
504	Bot Longit - Pier 2	7	110	50			E				16	0.0											16	0	3597
506	Top Longit - Span 1	4	57	89			E				131	3.0	2	0.0									137	3	5226
506	Top Longit - Span 2	4	57	89			E				121	3.0	2	0.0									127	3	4845
507	Top Longit - Pier 2	7	57	50			E				36	0.0											36	0	4194
508	Top Longit - Pier 2	7	62	50			E				28	0.0											28	0	3548
509	Top Transv End Splay	5	34	51			E				23	0.0											23	7	836
509	Top Transv End	5	52	51			E		V	2	23	6.0											24	1	2271
											59	1.0											59	8	
509	Top Transv End Hook	5	2	51			E				41	6.0											42	1	88
509	Top Transv End Straight	5	2	50			E				21	8.0											21	8	45
510	Top Transv Overhang	5	1148	51			E				8	1.0											8	8	10364
511	Top Transv Long	5	531	51			E				41	6.0											42	1	23301
512	Top Transv Short	5	531	51			E				24	8.0											25	3	13978

STEEL REINFORCING BAR QUANTITIES NOT INCLUDED IN THIS BAR LIST

TRAFFIC BARRIER
BRIDGE GRATE INLETS
RETAINING WALL

BENDING DIAGRAMS



NOTES:

1. ALL REINFORCING BARS ON THIS SHEET SHALL BE ASTM A 706 UNLESS SHOWN OTHERWISE.
2. REINFORCING FOR TRAFFIC BARRIERS NOT SHOWN IN THE BAR LIST, SEE TRAFFIC BARRIER SHEET.
3. BEND FOR TRANSVERSE BARS DUE TO ROADWAY CROWN CONDITIONS HAS NOT BEEN SHOWN. THESE BARS SHALL BE BENT AS REQUIRED TO CONFORM TO THE CONFIGURATION OF THE STRUCTURE.
4. NUMBER AND LENGTH OF BARS TO BE DETERMINED BY THE CONTRACTOR FROM PLANS.

Bridge Design Engr. Khaleghi, B
Supervisor Aldrich, BS
Designed By
Checked By
Detailed By
Bridge Projects Engr.
Prelim. Plan By
Architect/Specialist

M:\X-Team\I-90_WILDLIFE U-XING WB BRIDGE_SCR\window files\BARLIST.wnd

DATE	REVISION	BY	APP'D

REGION NO. 10 | STATE WASH. | FED. AID PROJ. NO. | SHEET NO. | TOTAL SHEETS

JOB NUMBER 19Y007
CONTRACT NO.

P.E. STAMP BOX — SEE SHEET CT9 — DATE:

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX — SEE SHEET CT9 — DATE:

Washington State Department of Transportation

I-90
CABIN CREEK I/C TO W EASTON I/C
PHASE 3 - ADD LANES/WILDLIFE BRIDGES
I-90 WILDLIFE U-XING WB BR. NO. 90/116.7N

BARLIST

BRIDGE SHEET NO. BJ57
SHEET 1588 OF 1783 SHEETS

SR I-90 FILE NO. SHEET BJ57

Mon Jan 31 16:04:24 2022

INDEX

SHEET NO.	PLAN REFERENCE NO.	TITLE
		SPARKS ROAD BRIDGE EB
1589	INB11	INDEX BRIDGE
1590	BK1	LAYOUT
1591	BK2	GENERAL NOTES
1592	BK3	CONSTRUCTION SEQUENCE
1593	BK4	FOUNDATION LAYOUT
1594	BK5	PEIR 1 PLAN
1595	BK6	PIER 1 ELEVATION
1596	BK7	PIER 1 DETAILS
1597	BK8	PIER 2 PLAN
1598	BK9	PIER 2 ELEVATION
1599	BK10	PIER 2 DETAILS
1600	BK11	SW CURTAIN WALL DETAILS
1601	BK12	SE CURTAIN WALL DETAILS
1602	BK13	GIRDER STOP DETAILS
1603	BK14	FRAMING PLAN
1604	BK15	TYPICAL SECTION
1605 - 1607	BK16 - BK18	SLAB GIRDER DETAILS
1608	BK19	SLAB GIRDER END DIAPHRAGM
1609	BK20	BRIDGE DECK REINFORCEMENT PLAN
1610	BK21	BRIDGE DECK REINFORCEMENT SECTION
1611 - 1613	BK22 - BK24	APPROACH SLAB DETAILS

INDEX (CONTINUED)

SHEET NO.	PLAN REFERENCE NO.	TITLE
1614 - 1617	BK25 - BK28	TRAFFIC BARRIER - SHAPE F 42 IN. DETAILS
1618 - 1619	BK29 - BK30	ARCHITECTURAL DETAILS
1620	BK31	BAR LIST

PLAN REF NO
¢¢###
SHEET ## OF ## SHEETS

NOTE: ALL SHEET REFERENCES, FIRST NOS. OF STRUCTURE CODE DESIGNATIONS AND MATCH LINE SHEET REFERENCES, ETC., THROUGHOUT THE PLANS, REFER TO THE ENTRY IN THE PLAN

FILE NAME	K:\452201\090\06736_Phase 3\Design_CAD_Sheets\010-Index\XL5479_PS_INB.dgn				REGION NO.	STATE	FED.AID PROJ.NO.
TIME	7:00:37 AM				10	WASH	
DATE	2/16/2022				JOB NUMBER		
PLOTTED BY	kingk				197007		
DESIGNED BY	KING/SCHILPEROORT				CONTRACT NO.		LOCATION NO.
ENTERED BY	K. KING						
CHECKED BY	K. KING						
PROJ. ENGR.	A. BYRD						
REGIONAL ADM.	T. TREPANIER	REVISION	DATE	BY			

DATE
P.E. STAMP BOX

DATE
P.E. STAMP BOX

Washington State Department of Transportation

I-90
CABIN CREEK I/C TO W EASTON I/C
PHASE 3 - ADD LANES/WILDLIFE BRIDGES

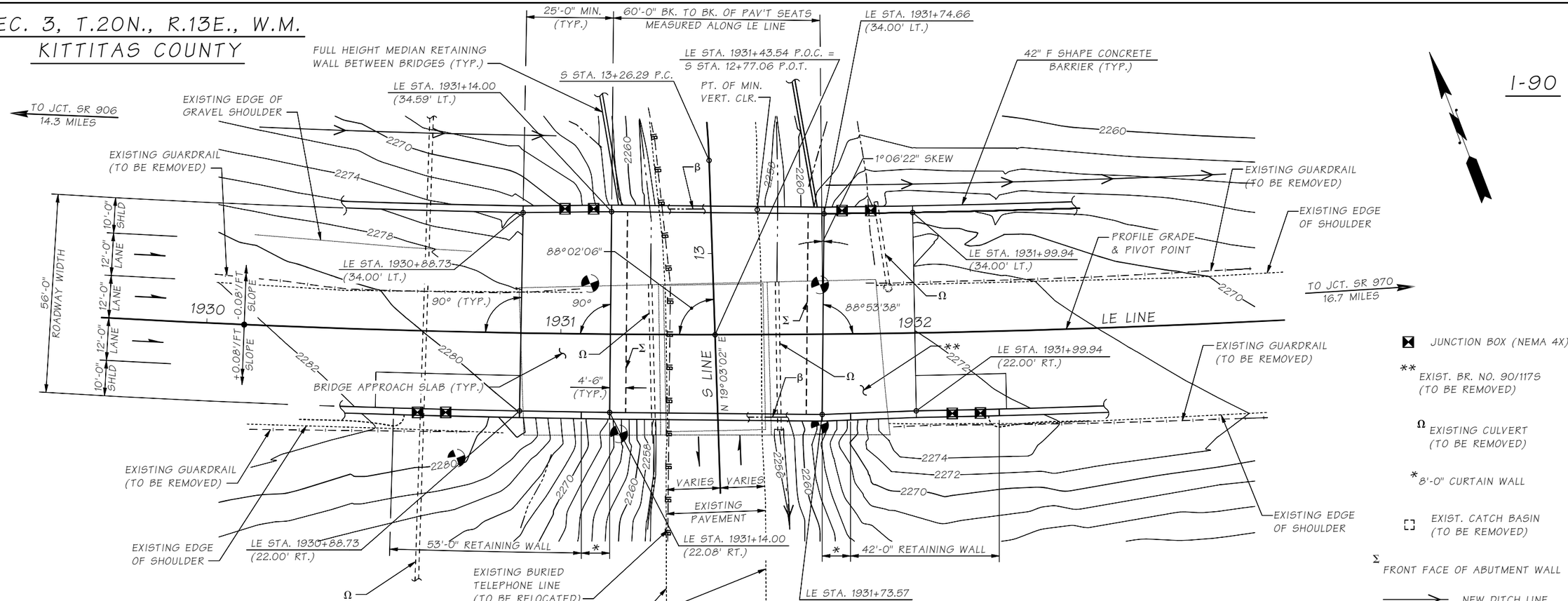
INDEX BRIDGE

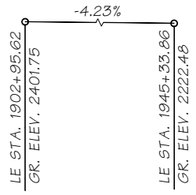
Plot 12

PLAN REF NO
INB11

SHEET 1589 OF 1783 SHEETS

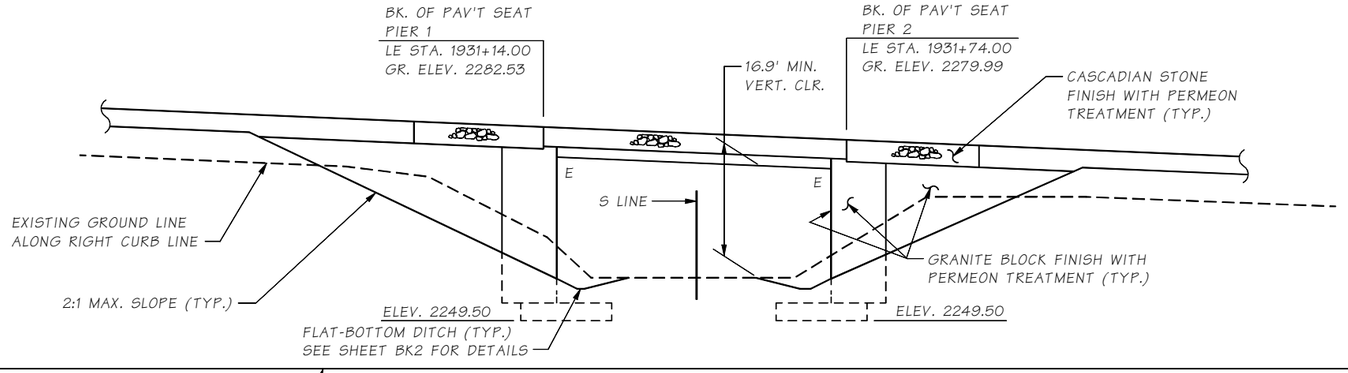
SEC. 3, T.20N., R.13E., W.M.
KITTITAS COUNTY





LE LINE PROFILE

DATUM
NAVD 88



ELEVATION

GRADE ELEVATIONS SHOWN ARE FINISH GRADES AT TOP OF BRIDGE DECK ON LE LINE AND ARE EQUAL TO PROFILE GRADE.

PRECAST PRESTRESSED SLAB (24" VOIDED SLAB) W/5" MIN. C-I-P DECK

LOADING: HL-93

SEISMIC OPERATIONAL CLASSIFICATION: NORMAL

SR I-90 FILE NO. SHEET BK1

Bridge Design Engr.	Khaleghi, B	M:\Z-Team\I-90 PHASE 3 SPARKS RD EB\window files\LAYOUT.wnd				REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor	Zeldenrust, RP					10	WASH.			
Designed By	Liu, S 06/20					JOB NUMBER 19Y007				
Checked By	Barkley, J 01/22					CONTRACT NO.				
Detailed By	Uhde, T 06/20									
Bridge Projects Engr.										
Prelim. Plan By										
Architect/Specialist		DATE	REVISION	BY	APP'D					

Mon Feb 07 11:55:34 2022

P.E. STAMP BOX
SEE SHEET CT9
DATE

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX
BILLAL KHALEGHI
STATE OF WASHINGTON
27695
STRUCTURAL ENGINEER
PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE

Washington State Department of Transportation

I-90
CABIN CR I/C TO W EASTON I/C PHASE 3
ADD LANES / WILDLIFE BRIDGES
SPARKS RD BRIDGE EB NO. 90/117S

LAYOUT

BRIDGE SHEET NO. BK1
SHEET 1590 OF 1783 SHEETS

CURVE DATA					
P.I. STATION	Δ	RADIUS	TANGENT	LENGTH	BK. TANGENT BRG.
LE 1928+90.63	36°01'30" LT.	3108.00'	1010.60'	1954.17'	S 45°41'30" E
S 13+57.61	17°48'13" LT.	200.00'	31.33'	62.15'	N 19°03'02" E

GENERAL NOTES

1. ALL MATERIAL AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION DATED 2022.

2. THIS STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH THE REQUIREMENTS OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS 9TH EDITION 2020. DEAD LOAD INCLUDES ADDITIONAL FUTURE WEARING SURFACE OF 35 POUNDS PER SQUARE FOOT.

3. THE SEISMIC DESIGN OF THIS STRUCTURE HAS BEEN COMPLETED IN ACCORDANCE WITH THE REQUIREMENTS OF THE AASHTO GUIDE SPECIFICATIONS FOR LRFD SEISMIC BRIDGE DESIGN 2ND EDITION 2011, USING SEISMIC DESIGN CATEGORY A, SITE CLASS C, A PEAK GROUND ACCELERATION OF 0.23, AND 0.2 SECOND AND 1.0 SECOND SPECTRAL ACCELERATION OF 0.52 AND 0.15, RESPECTIVELY, ON SITE CLASS B.

4. THE CONCRETE IN BRIDGE DECKS SHALL BE CLASS 4000D. THE CONCRETE IN BRIDGE APPROACH SLABS SHALL BE CLASS 4000A. ALL OTHER CAST-IN-PLACE CONCRETE SHALL BE CLASS 4000.

5. THE BACKFILL BEHIND THE ABUTMENTS MAY BE PLACED PRIOR TO PLACEMENT OF THE SUPERSTRUCTURE, IN ACCORDANCE WITH SECTION 2-09.3(1)E.

6. UNLESS OTHERWISE SHOWN IN THE PLANS, CONCRETE COVER MEASURED FROM THE FACE OF CONCRETE TO THE FACE OF ANY REINFORCING STEEL SHALL BE 2½" AT THE TOP OF THE BRIDGE DECK, 3" AT THE BOTTOM OF FOOTING, AND 2" AT ALL OTHER LOCATIONS.

7. FALSEWORK SHALL BE CAREFULLY RELEASED TO PREVENT IMPACT OR UNDUE STRESS IN THE STRUCTURE.

8. CONDUITS, JUNCTION BOXES, AND UTILITIES ARE SHOWN FOR REFERENCE ONLY. THE CONTRACTOR SHALL COORDINATE THESE PLANS WITH THE ELECTRICAL, I.T.S. AND OTHER CIVIL PLANS.

9. NOMINAL BEARING RESISTANCE OF SPREAD FOOTING SHALL BE TAKEN AS FOLLOWS:

PIER NO.	SERVICE LIMIT STATE	STRENGTH LIMIT STATE	EXTREME 1 LIMIT STATE
1	16 KSF	44.4 KSF	22.2 KSF
2	16 KSF	44.4 KSF	22.2 KSF

10. THE 42 IN. TRAFFIC BARRIER HAS BEEN DESIGNED IN ACCORDANCE WITH AASHTO LRFD DESIGN SPECIFICATION TEST LEVEL 5.

11. SNOW ACCUMULATION ON COMPLETED BRIDGE DECKS CLOSED TO TRAFFIC SHALL NOT EXCEED 4'-0" DEPTH. ANY SNOW REMOVAL EQUIPMENT SHALL NOT EXCEED LEGAL LOAD LIMITS.

SR I-90 FILE NO. ____ SHEET BK2

Bridge Design Engr.	Khaleghi, B	M:\Z-Team\I-90 PHASE 3 SPARKS RD EB\window files\GENERAL NOTES.wnd								
Supervisor	Zeldenrust, RP						REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Designed By	Liu, S 06/20						10	WASH.			
Checked By	Barkley, J 01/22						JOB NUMBER 19Y007				
Detailed By	Uhde, T 06/20										
Bridge Projects Engr.							CONTRACT NO.				
Prelim. Plan By											
Architect/Specialist		DATE	REVISION	BY	APP'D						

Mon Feb 07 11:55:35 2022

P.E. STAMP BOX
RICHARD P. ZELDENRUST — STATE OF WASHINGTON — 20670 — PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX
BRIAN KHALEGHI — STATE OF WASHINGTON — 27095 — PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE

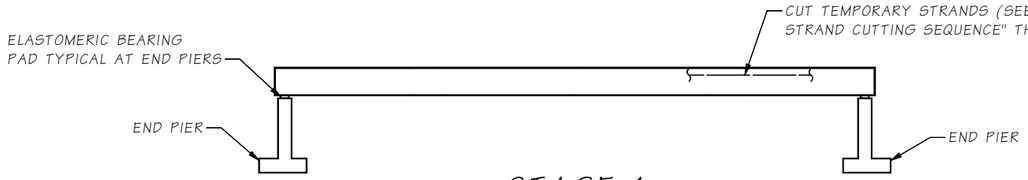
Washington State Department of Transportation

I-90
CABIN CR I/C TO W EASTON I/C PHASE 3
ADD LANES / WILDLIFE BRIDGES
SPARKS RD BRIDGE EB NO. 90/117S

GENERAL NOTES

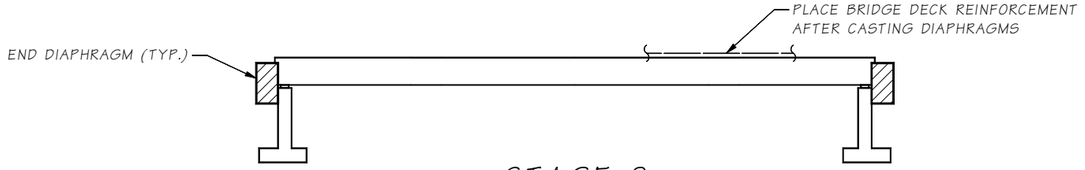
BRIDGE SHEET NO. BK2

SHEET 1591 OF 1783 SHEETS



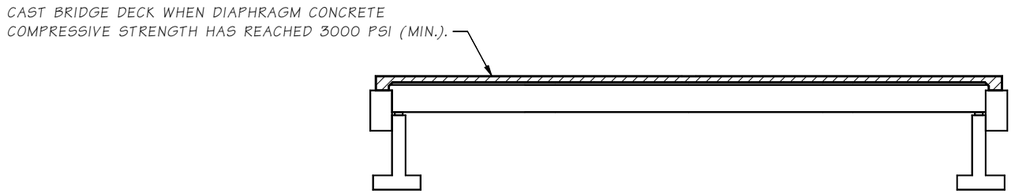
STAGE 1
SET GIRDERS IN PLACE

INSTALL TEMPORARY BRACING FOR ERECTION IN ACCORDANCE WITH SECTION 6-02.3(17)F4.

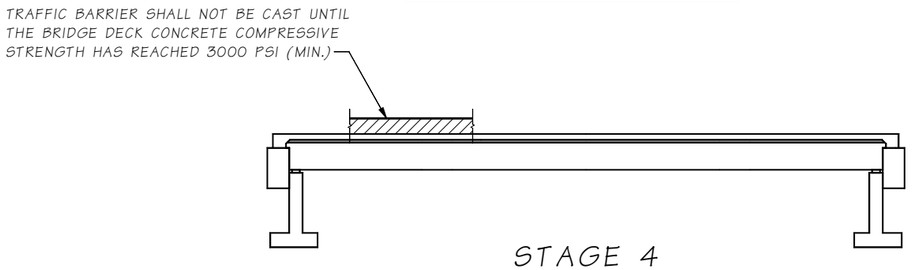


STAGE 2
CAST DIAPHRAGMS AND PLACE BRIDGE DECK REINFORCEMENT

INSTALL TEMPORARY BRACING FOR DIAPHRAGM AND DECK PLACEMENT IN ACCORDANCE WITH SECTION 6-02.3(17)F5.



STAGE 3
CAST BRIDGE DECK



STAGE 4
CAST TRAFFIC BARRIERS

TEMPORARY STRAND CUTTING SEQUENCE

1. ERECT AND BRACE GIRDERS.
2. REMOVE EXPANDED POLYSTYRENE IN 2" x 6" RECESSES IN TOP FLANGE OF GIRDERS.
3. CUT STRANDS IN 2" x 6" RECESSES. STRANDS MAY BE CUT BY USING A CUTTING TORCH AND MOVING THE FLAME BACK AND FORTH OVER THE LENGTH OF EXPOSED STRAND TO LET INDIVIDUAL WIRES BREAK ONE AT A TIME TO LESSEN THE SHOCK TO THE GIRDER. STRANDS SHALL BE RELEASED IN A SYMMETRICAL MANNER AROUND THE GIRDER CENTERLINE STARTING WITH THOSE NEAREST THE CENTERLINE AND WORKING OUTWARDS.
4. REMOVE ALL MOISTURE IN RECESS PRIOR TO FILLING RECESS WITH GROUT.

CONSTRUCTION SEQUENCE ~ SUPERSTRUCTURE

SR I-90 FILE NO. ____ SHEET BK3

Bridge Design Engr.	Khaleghi, B	
Supervisor	Zeldenrust, RP	
Designed By	Liu, S	06/20
Checked By	Barkley, J	01/22
Detailed By	Uhde, T	06/20
Bridge Projects Engr.		
Prelim. Plan By		
Architect/Specialist		

M:\Z-Team\I-90 PHASE 3 SPARKS RD EB\window files\CONSTRUCTION SEQUENCE.wnd

DATE	REVISION	BY	APP'D

REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
10	WASH.			
JOB NUMBER 19Y007				
CONTRACT NO.				

P.E. STAMP BOX
RICHARD P. ZELDENRUST — STATE OF WASHINGTON — 19170 — PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX
BIJAN KHALEGHI — STATE OF WASHINGTON — 37906 — PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE

Washington State Department of Transportation

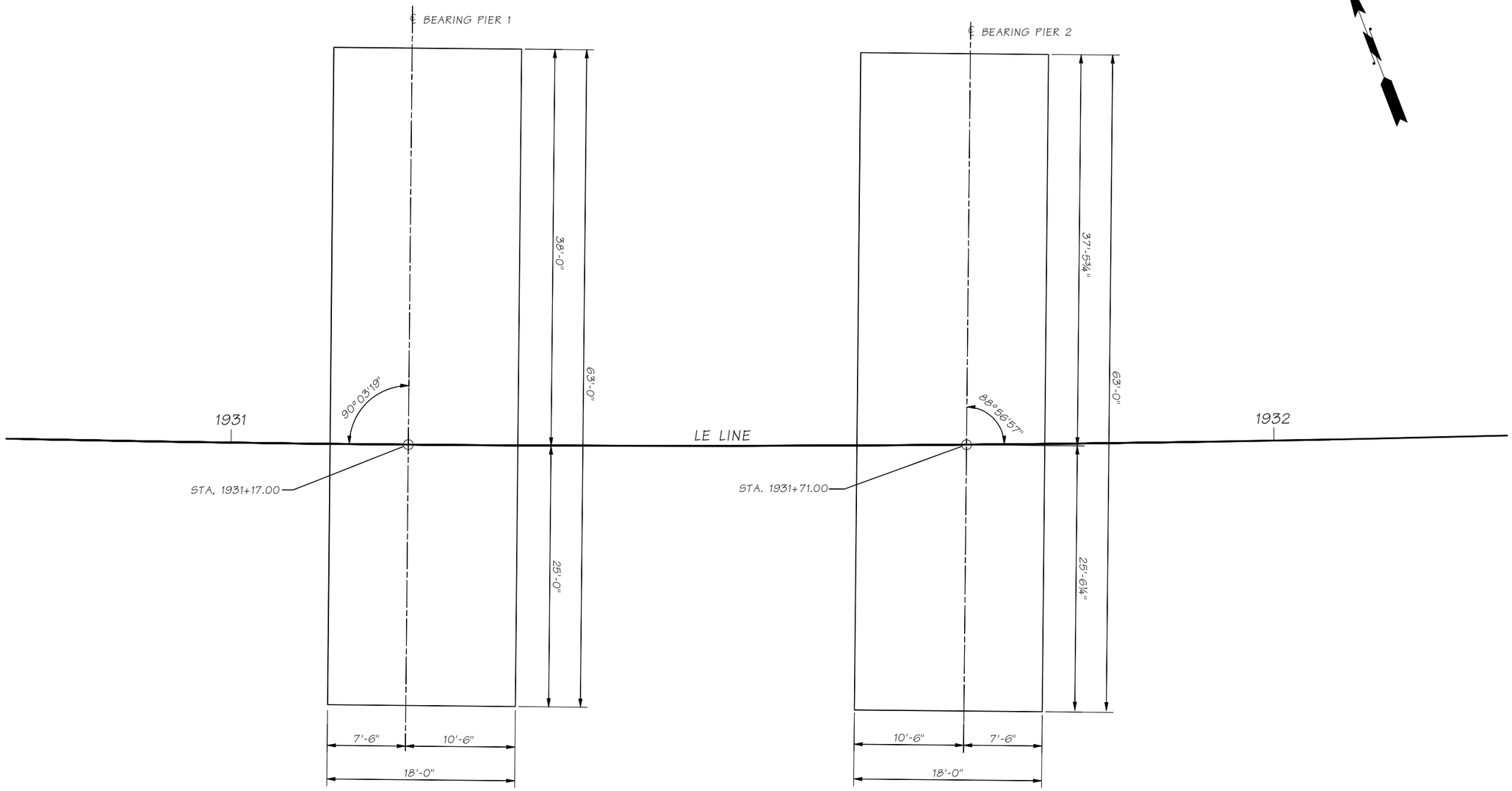
I-90
CABIN CR I/C TO W EASTON I/C PHASE 3
ADD LANES / WILDLIFE BRIDGES
SPARKS RD BRIDGE EB NO. 90/117S

CONSTRUCTION SEQUENCE

BRIDGE SHEET NO. BK3

SHEET 1592 OF 1783 SHEETS

Mon Feb 07 11:55:35 2022



FOUNDATION PLAN

BEARING OF PIERS IS N 21°33'37" E

SR I-90 FILE NO. ____ SHEET BK4

Bridge Design Engr.	Khaleghi, B	M:\Z-Team\I-90 PHASE 3 SPARKS RD EB\window files\FOUNDATION PLAN.wnd								
Supervisor	Zeldenrust, RP									
Designed By	Liu, S 06/20									
Checked By	Barkley, J 01/22									
Detailed By	Uhde, T 06/20									
Bridge Projects Engr.										
Prelim. Plan By										
Architect/Specialist		DATE	REVISION	BY	APP'D					

REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
10	WASH.			
JOB NUMBER 19Y007				
CONTRACT NO.				

P.E. STAMP BOX
RICHARD P. ZELDENRUST — STATE OF WASHINGTON — 25470 — PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX
BIJAN KHALEGHI — STATE OF WASHINGTON — 27705 — PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE

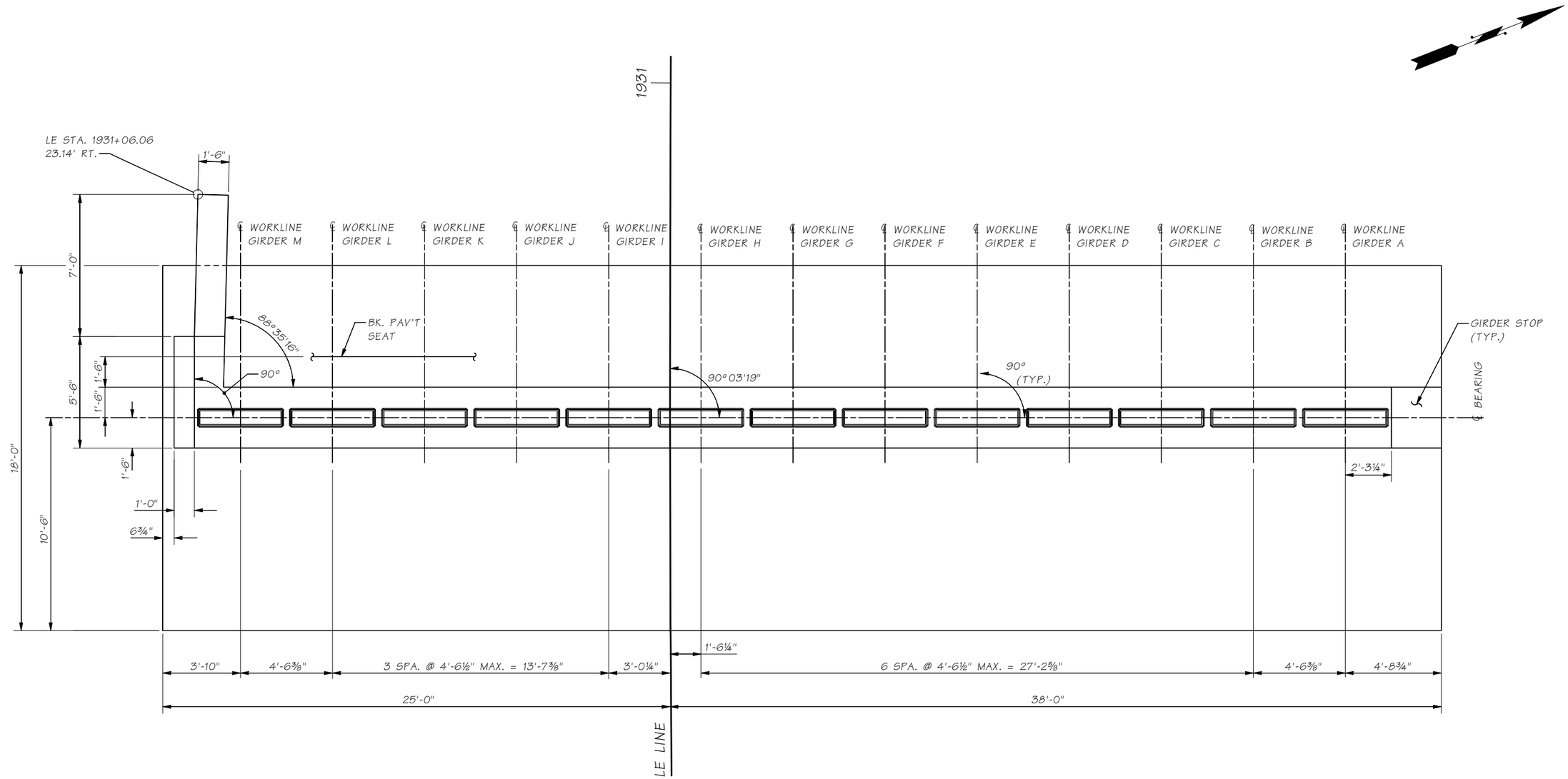
Washington State Department of Transportation

I-90
CABIN CR I/C TO W EASTON I/C PHASE 3
ADD LANES / WILDLIFE BRIDGES
SPARKS RD BRIDGE EB NO. 90/117S

FOUNDATION LAYOUT

BRIDGE SHEET NO. BK4
SHEET 1593 OF 1783 SHEETS

Mon Feb 07 11:55:35 2022



PIER 1 ~ PLAN

SR I-90 FILE NO. ____ SHEET BK5

Bridge Design Engr.	Khaleghi, B	M:\Z-Team\I-90 PHASE 3 SPARKS RD EB\window files\PIER 1 PLAN & ELEVATION.wnd				REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor	Zeldenrust, RP					10	WASH.			
Designed By	Liu, S 06/20					JOB NUMBER 19Y007				
Checked By	Barkley, J 01/22					CONTRACT NO.				
Detailed By	Uhde, T 06/20									
Bridge Projects Engr.										
Prelim. Plan By										
Architect/Specialist		DATE	REVISION	BY	APP'D					

Mon Feb 07 11:55:35 2022

P.E. STAMP BOX
RICHARD P. ZELDENRUST — STATE OF WASHINGTON — 25970 — PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE:

BRIDGE AND STRUCTURES OFFICE

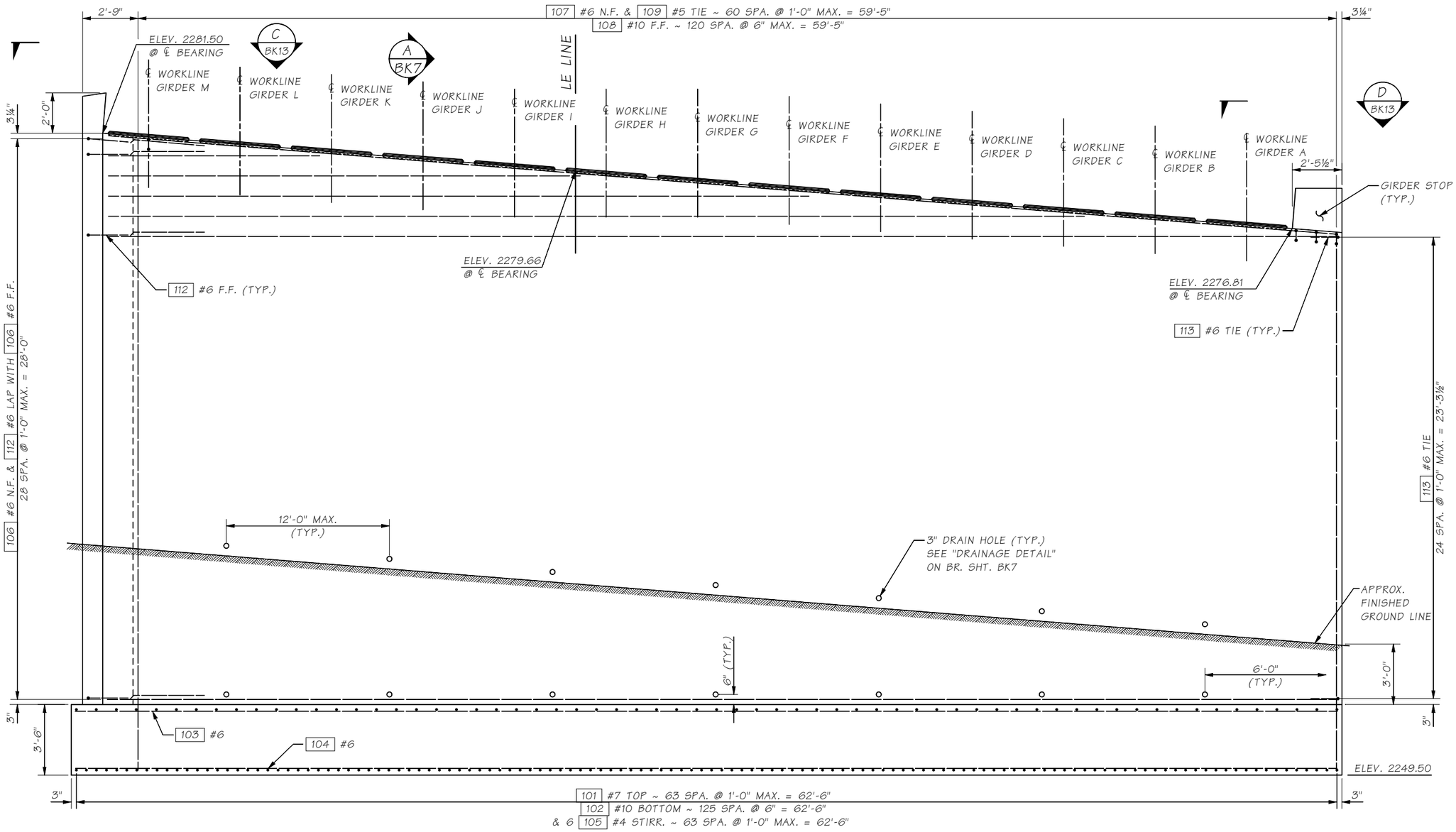
P.E. STAMP BOX
BIJAN KHALEGHI — STATE OF WASHINGTON — 27695 — STRUCTURAL ENGINEER — PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE:

Washington State Department of Transportation

I-90
CABIN CR I/C TO W EASTON I/C PHASE 3
ADD LANES / WILDLIFE BRIDGES
SPARKS RD BRIDGE EB NO. 90/117S

PIER 1
PLAN

BRIDGE SHEET NO. BK5
SHEET 1594 OF 1783 SHEETS



ELEVATION ~ PIER 1

LOOKING BACK ON STATION

TOP OF GROUT PAD AT ℄ BEARING ELEVATION & ℄ GIRDER

GIRDER	A	B	C	D	E	F	G	H	I	J	K	L	M
ELEVATION	2277.11	2277.47	2277.83	2278.20	2278.56	2278.92	2279.29	2279.65	2280.01	2280.38	2280.74	2281.11	2281.47

SR I-90 FILE NO. SHEET BK6

Bridge Design Engr.	Khaleghi, B	
Supervisor	Zeldenrust, RP	
Designed By	Liu, S	10/20
Checked By	Barkley, J	01/22
Detailed By	Uhde, T	10/20
Bridge Projects Engr.		
Prelim. Plan By		
Architect/Specialist		

M:\Z-Team\I-90 PHASE 3 SPARKS RD EB\window files\PIER 1 ELEVATION.wnd

DATE	REVISION	BY	APP'D

REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
10	WASH.			
JOB NUMBER 19Y007				
CONTRACT NO.				

P.E. STAMP BOX
RICHARD P. ZELDENRUST — STATE OF WASHINGTON — 25470 — PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX
BILIAN KHALEGHI — STATE OF WASHINGTON — 37695 — PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE

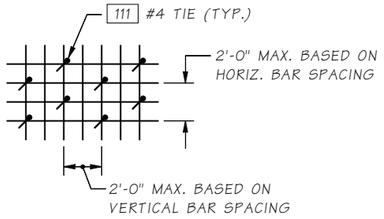
Washington State Department of Transportation

I-90
CABIN CR I/C TO W EASTON I/C PHASE 3
ADD LANES / WILDLIFE BRIDGES
SPARKS RD BRIDGE EB NO. 90/117S

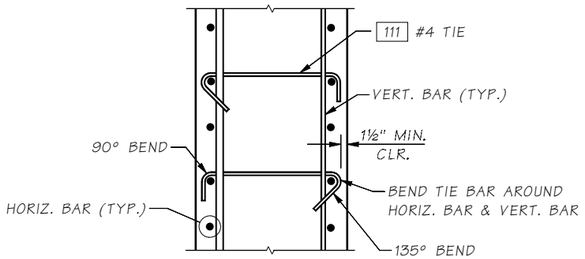
PIER 1
ELEVATION

BRIDGE SHEET NO. BK6
SHEET 1595 OF 1783 SHEETS

Mon Feb 07 11:55:35 2022

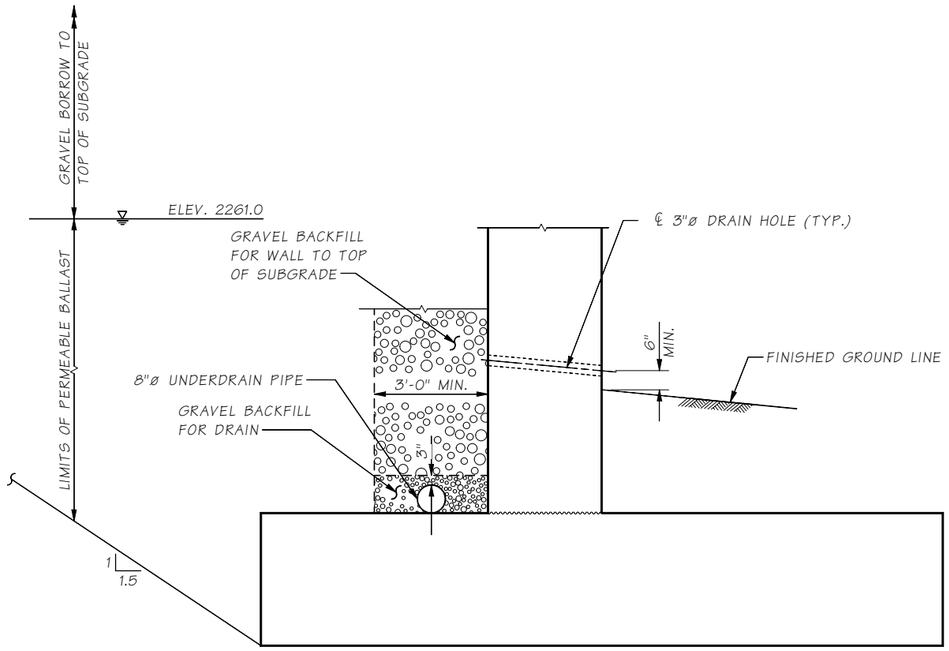


TIE BAR SPACING DETAIL

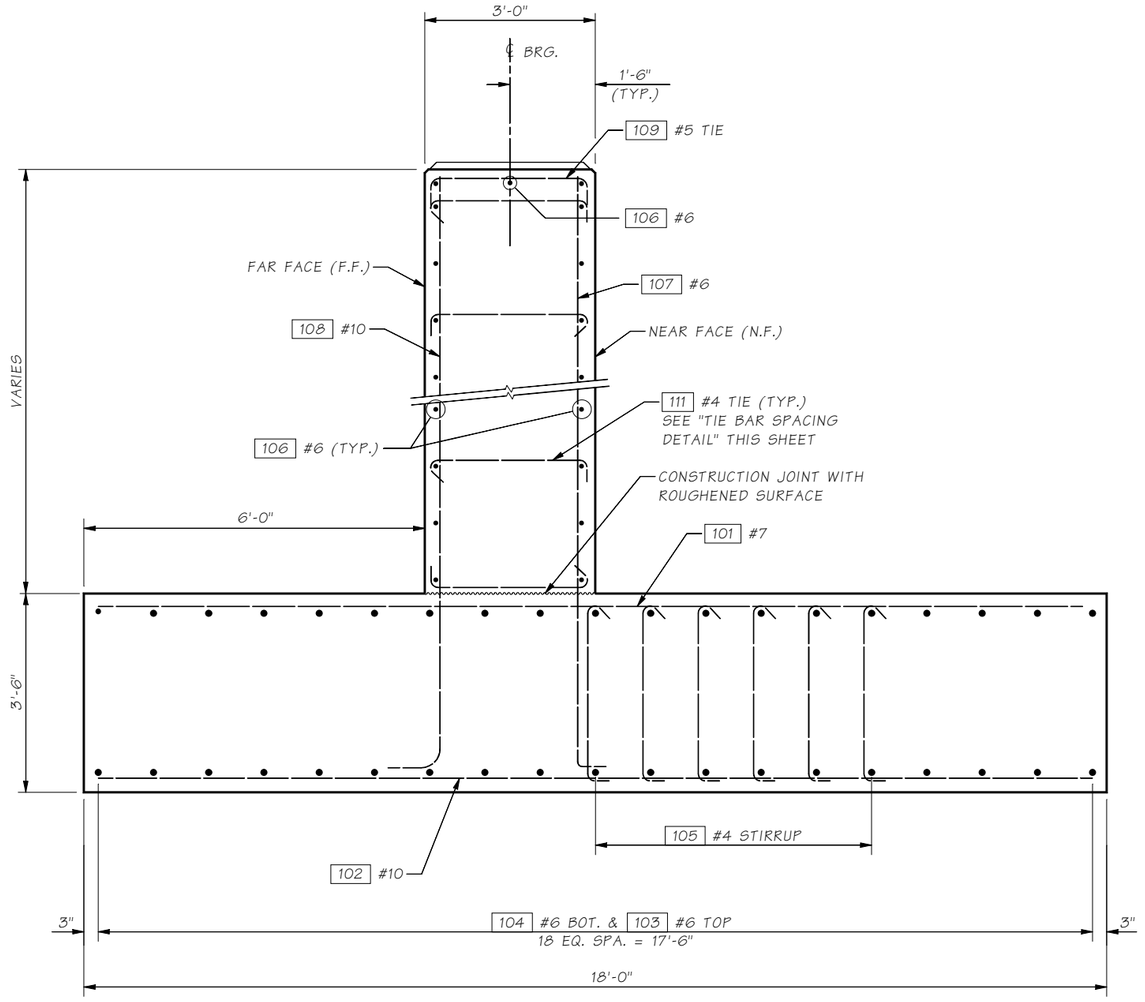


TIE BAR DETAIL

ALTERNATE 135° HOOK EVERY OTHER TIE BAR



DRAINAGE DETAIL



SECTION A (BK6)

SR I-90 FILE NO. SHEET BK7

Bridge Design Engr.	Khaleghi, B	M:\Z-Team\I-90 PHASE 3 SPARKS RD EB\window files\PIER 1 DETAILS.wnd				REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor	Zeldenrust, RP					10	WASH.			
Designed By	Liu, S 11/20					JOB NUMBER 19Y007				
Checked By	Barkley, J 01/22					CONTRACT NO.				
Detailed By	Uhde, T 11/20									
Bridge Projects Engr.										
Prelim. Plan By										
Architect/Specialist		DATE	REVISION	BY	APP'D					

Mon Feb 07 11:55:36 2022

P.E. STAMP BOX: RICHARD P. ZELDENRUST, STATE OF WASHINGTON, 25470, STRUCTURAL ENGINEER, PROFESSIONAL ENGINEER — SEE SHEET CT9 — DATE:

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX: BILIAN KHALEGHI, STATE OF WASHINGTON, 37695, STRUCTURAL ENGINEER, PROFESSIONAL ENGINEER — SEE SHEET CT9 — DATE:

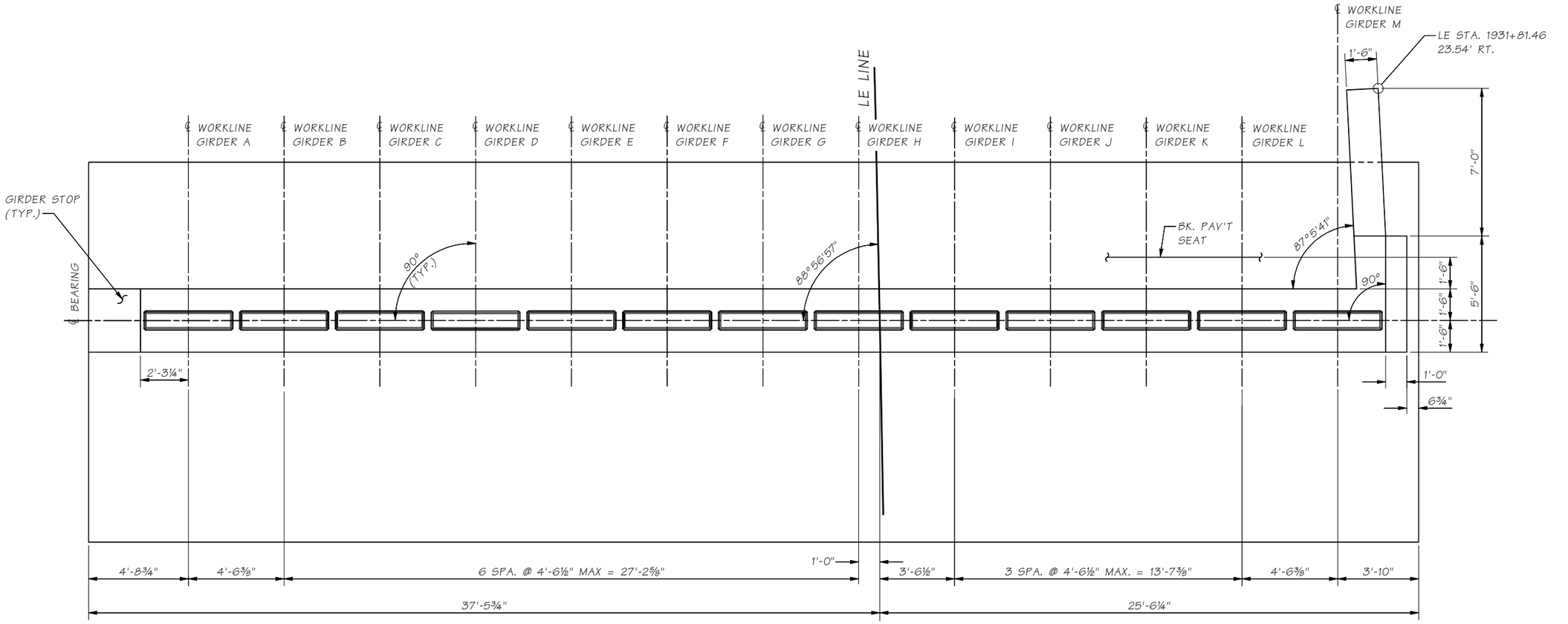
Washington State Department of Transportation

I-90
CABIN CR I/C TO W EASTON I/C PHASE 3 ADD LANES / WILDLIFE BRIDGES
SPARKS RD BRIDGE EB NO. 90/117S

PIER 1 DETAILS

BRIDGE SHEET NO. BK7

SHEET 1596 OF 1783 SHEETS



PIER 2 ~ PLAN

SR I-90 FILE NO. ____ SHEET BK8

Bridge Design Engr.	Khaleghi, B	M:\Z-Team\I-90 PHASE 3 SPARKS RD EB\window files\PIER 2 PLAN & ELEVATION.wnd								
Supervisor	Zeldenrust, RP						REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Designed By	Liu, S 06/20						10	WASH.			
Checked By	Barkley, J 01/22						JOB NUMBER 19Y007				
Detailed By	Uhde, T 06/20						CONTRACT NO.				
Bridge Projects Engr.											
Prelim. Plan By											
Architect/Specialist		DATE	REVISION	BY	APP'D						

Mon Feb 07 11:55:36 2022

P.E. STAMP BOX
RICHARD P. ZELDENRUST — STATE OF WASHINGTON — 20479 — STRUCTURAL ENGINEER — PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE

BRIDGE AND STRUCTURES OFFICE

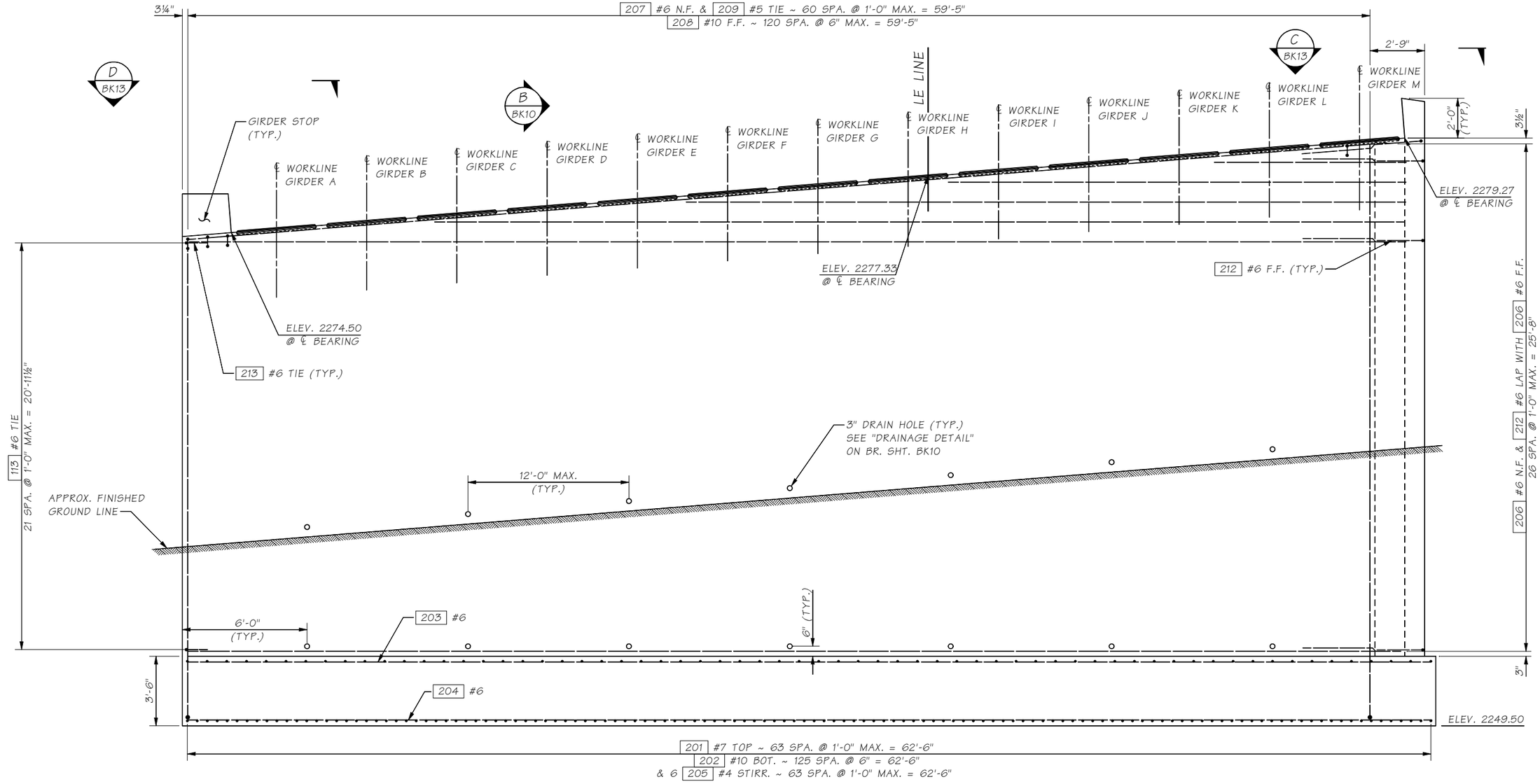
P.E. STAMP BOX
BIJAN KHALEGHI — STATE OF WASHINGTON — 27000 — STRUCTURAL ENGINEER — PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE

Washington State Department of Transportation

I-90
CABIN CR I/C TO W EASTON I/C PHASE 3
ADD LANES / WILDLIFE BRIDGES
SPARKS RD BRIDGE EB NO. 90/117S

PIER 2
PLAN

BRIDGE SHEET NO. BK8
SHEET 1597 OF 1783 SHEETS



ELEVATION ~ PIER 2

TOP OF GROUT PAD AT ℄ BEARING ELEVATION & ℄ GIRDER

GIRDER	A	B	C	D	E	F	G	H	I	J	K	L	M
ELEVATION	2274.82	2275.18	2275.55	2275.92	2276.28	2276.65	2277.02	2277.38	2277.75	2278.12	2278.49	2278.85	2279.22

SR I-90 FILE NO. ____ SHEET BK9

Bridge Design Engr.	Khaleghi, B	M:\Z-Team\I-90 PHASE 3 SPARKS RD EB\window files\PIER 2 ELEVATION.wnd								
Supervisor	Zeldenrust, RP									
Designed By	Liu, S 10/20									
Checked By	Barkley, J 01/22									
Detailed By	Uhde, T 10/20									
Bridge Projects Engr.										
Prelim. Plan By										
Architect/Specialist		DATE	REVISION	BY	APP'D					

REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
10	WASH.			
JOB NUMBER 19Y007				
CONTRACT NO.				

P.E. STAMP BOX
RICHARD P. ZELDENRUST — STATE OF WASHINGTON — 20439 — STRUCTURAL ENGINEER — PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX
BIJAN KHALEGHI — STATE OF WASHINGTON — 27060 — STRUCTURAL ENGINEER — PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE

Washington State Department of Transportation

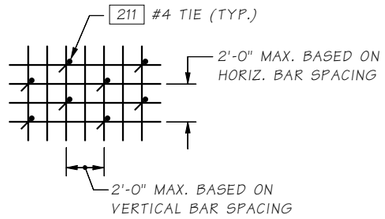
I-90
CABIN CR I/C TO W EASTON I/C PHASE 3
ADD LANES / WILDLIFE BRIDGES
SPARKS RD BRIDGE EB NO. 90/117S

PIER 2 ELEVATION

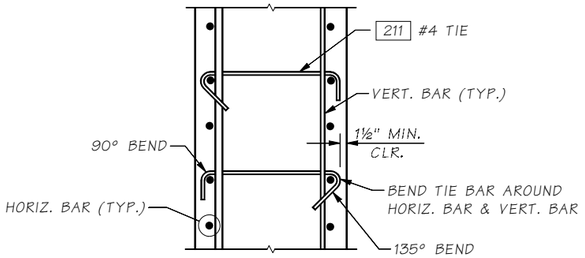
BRIDGE SHEET NO. BK9

SHEET 1598 OF 1783 SHEETS

Mon Feb 07 11:55:36 2022

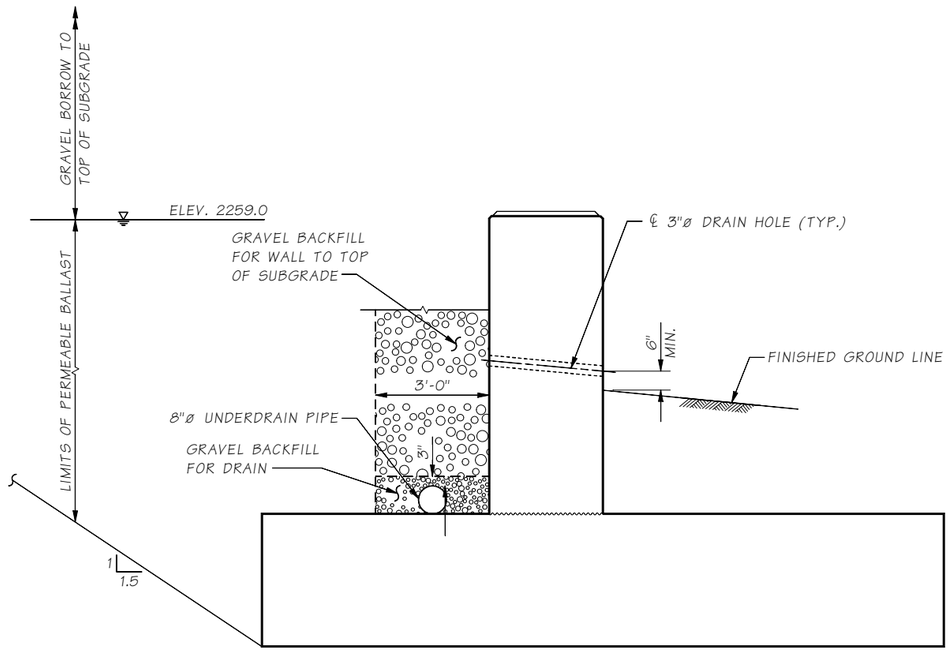


TIE BAR SPACING DETAIL

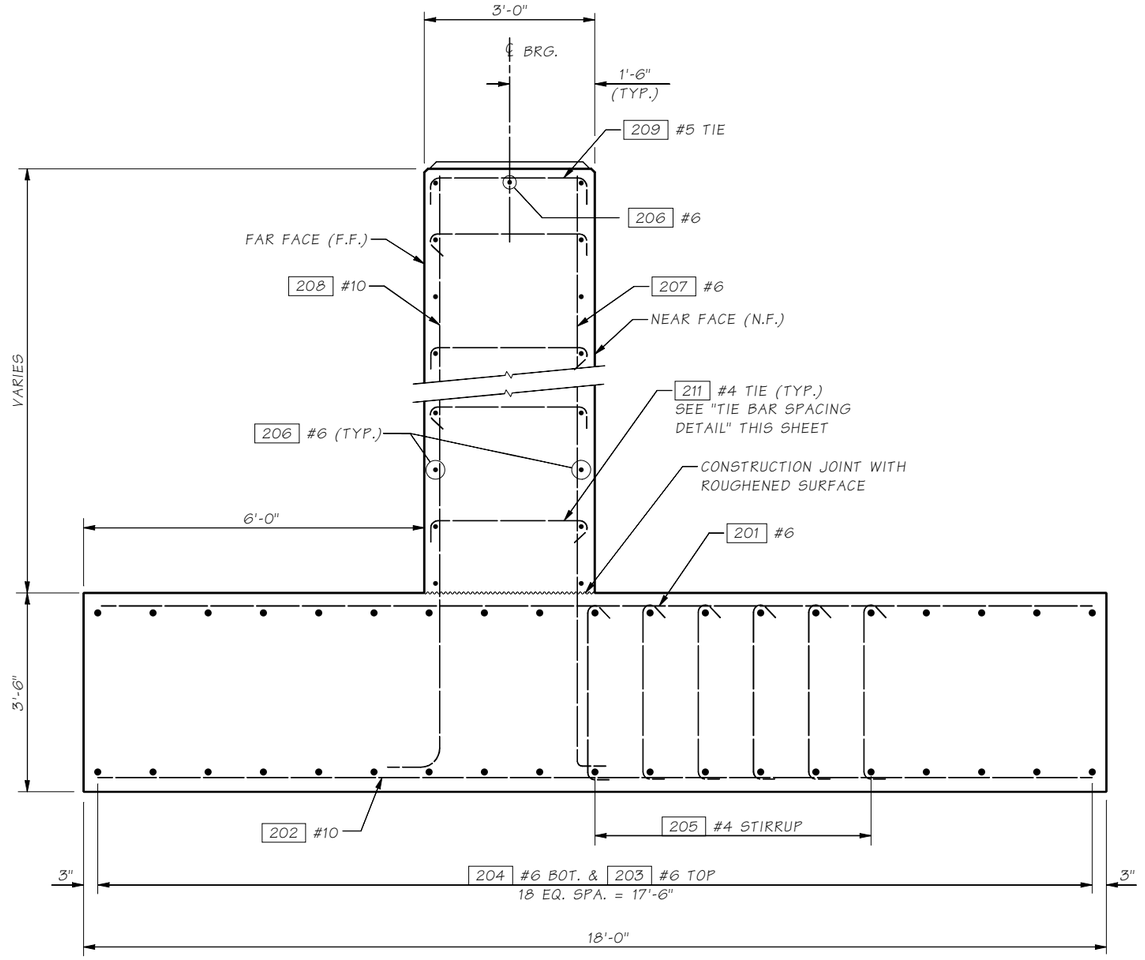


TIE BAR DETAIL

ALTERNATE 135° HOOK EVERY OTHER TIE BAR



DRAINAGE DETAIL



SECTION B (BK9)

SR I-90 FILE NO. ____ SHEET BK10

Bridge Design Engr.	Khaleghi, B	M:\Z-Team\I-90 PHASE 3 SPARKS RD EB\window files\PIER 2 DETAILS.wnd				REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor	Zeldenrust, RP					10	WASH.			
Designed By	Liu, S 11/20					JOB NUMBER 19Y007				
Checked By	Barkley, J 01/22					CONTRACT NO.				
Detailed By	Uhde, T 11/20									
Bridge Projects Engr.										
Prelim. Plan By										
Architect/Specialist		DATE	REVISION	BY	APP'D					

Mon Feb 07 11:55:36 2022

P.E. STAMP BOX — RICHARD P. ZELDENRUST, STATE OF WASHINGTON, 25479, PROFESSIONAL ENGINEER, STRUCTURAL ENGINEER — SEE SHEET CT9 — DATE

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX — BIJAN KHALEGHI, STATE OF WASHINGTON, 27695, PROFESSIONAL ENGINEER, STRUCTURAL ENGINEER — SEE SHEET CT9 — DATE

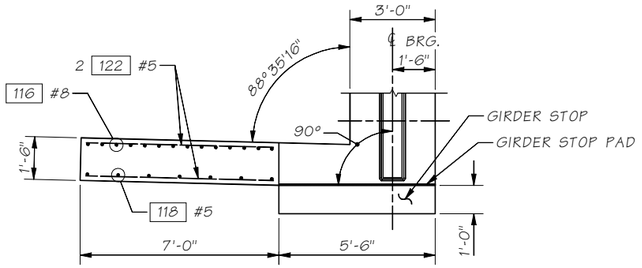
Washington State Department of Transportation

I-90
CABIN CR I/C TO W EASTON I/C PHASE 3
ADD LANES / WILDLIFE BRIDGES
SPARKS RD BRIDGE EB NO. 90/117S

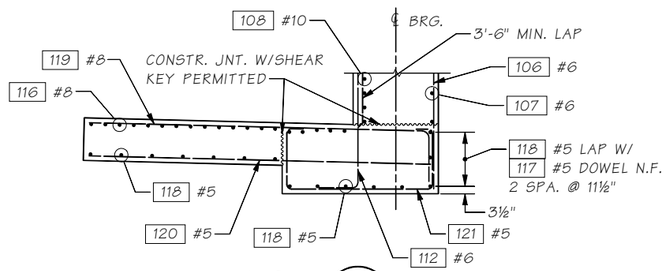
PIER 2 DETAILS

BRIDGE SHEET NO. BK10

SHEET 1599 OF 1783 SHEETS



SECTION A



SECTION B

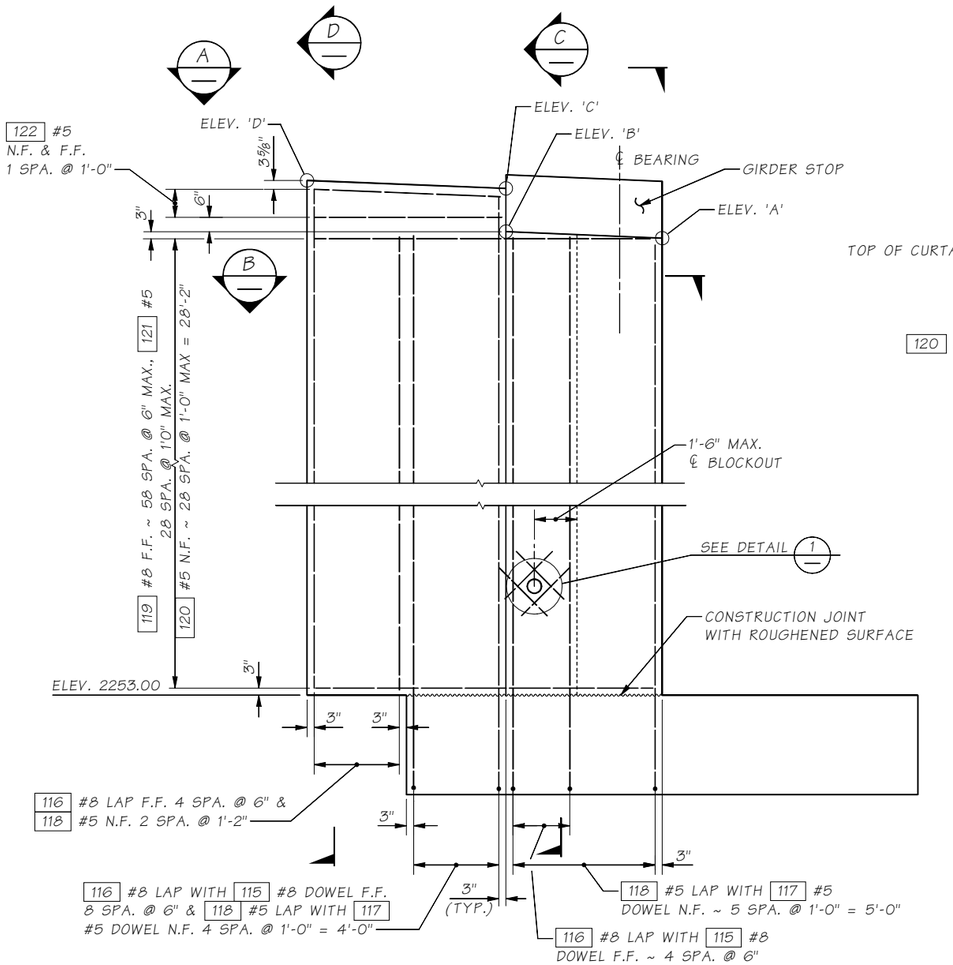
ELEVATION TABLE			
'A'	'B'	'C'	'D'
2281.43	2281.66	2283.18	2283.46

N.F. - NEAR FACE

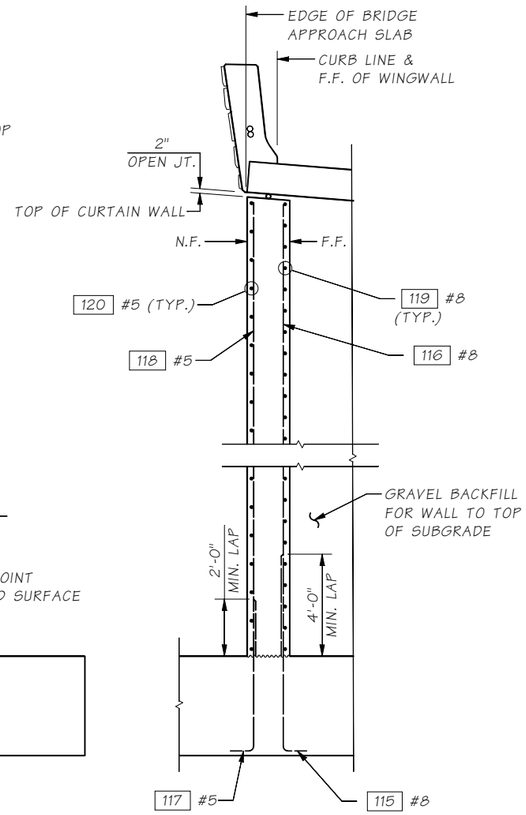
F.F. - FAR FACE

E.F. - EACH FACE

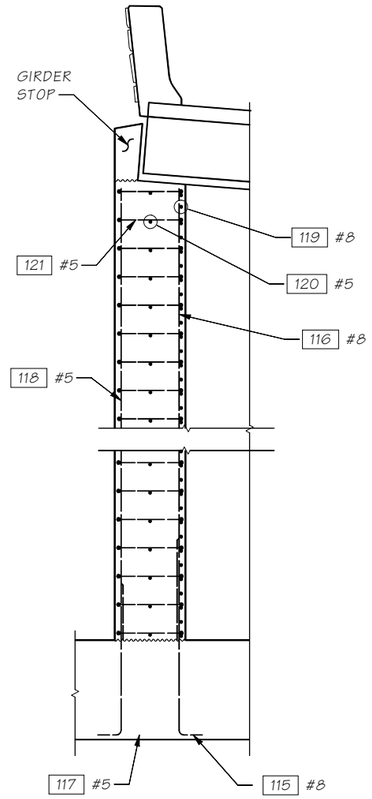
** - MEASURED ALONG N.F. OF WALL



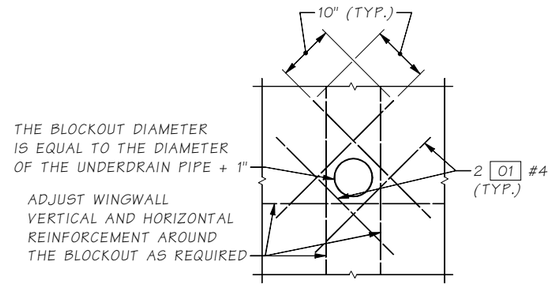
SW CURTAIN WALL ELEVATION



SECTION D



SECTION C



DETAIL 1

SR I-90 FILE NO. SHEET BK11

Bridge Design Engr.	Khaleghi, B	M:\Z-Team\I-90 PHASE 3 SPARKS RD EB\window files\SW CURTAIN WALL DETAILS.wnd				REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor	Zeldenrust, RP					10	WASH.			
Designed By	Liu, S 11/20					JOB NUMBER 19Y007				
Checked By	Barkley, J 01/22									
Detailed By	Uhde, T 11/20					CONTRACT NO.				
Bridge Projects Engr.										
Prelim. Plan By										
Architect/Specialist		DATE	REVISION	BY	APP'D					

Mon Feb 07 11:55:37 2022

P.E. STAMP BOX
RICHARD P. ZELDENRUST — STATE OF WASHINGTON — 20470 — REGISTERED PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX
BIJAN KHALEGHI — STATE OF WASHINGTON — 27695 — REGISTERED PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE

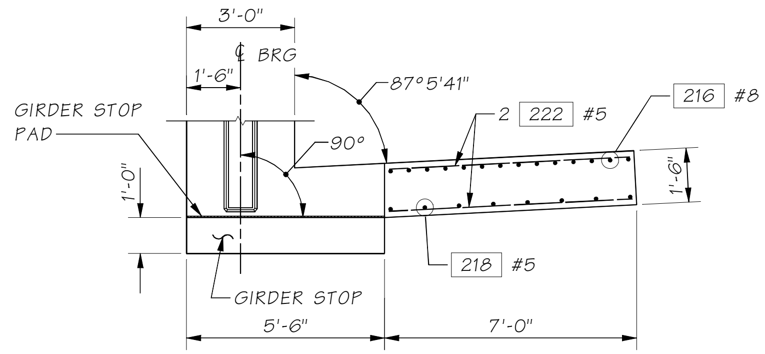
Washington State Department of Transportation

I-90
CABIN CR I/C TO W EASTON I/C PHASE 3
ADD LANES / WILDLIFE BRIDGES
SPARKS RD BRIDGE EB NO. 90/117S

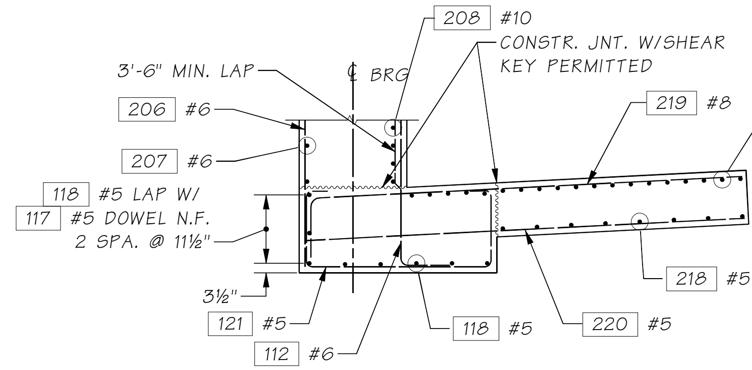
SW CURTAIN WALL DETAILS

BRIDGE SHEET NO. BK11

SHEET 1600 OF 1783 SHEETS



SECTION (A)



SECTION (B)

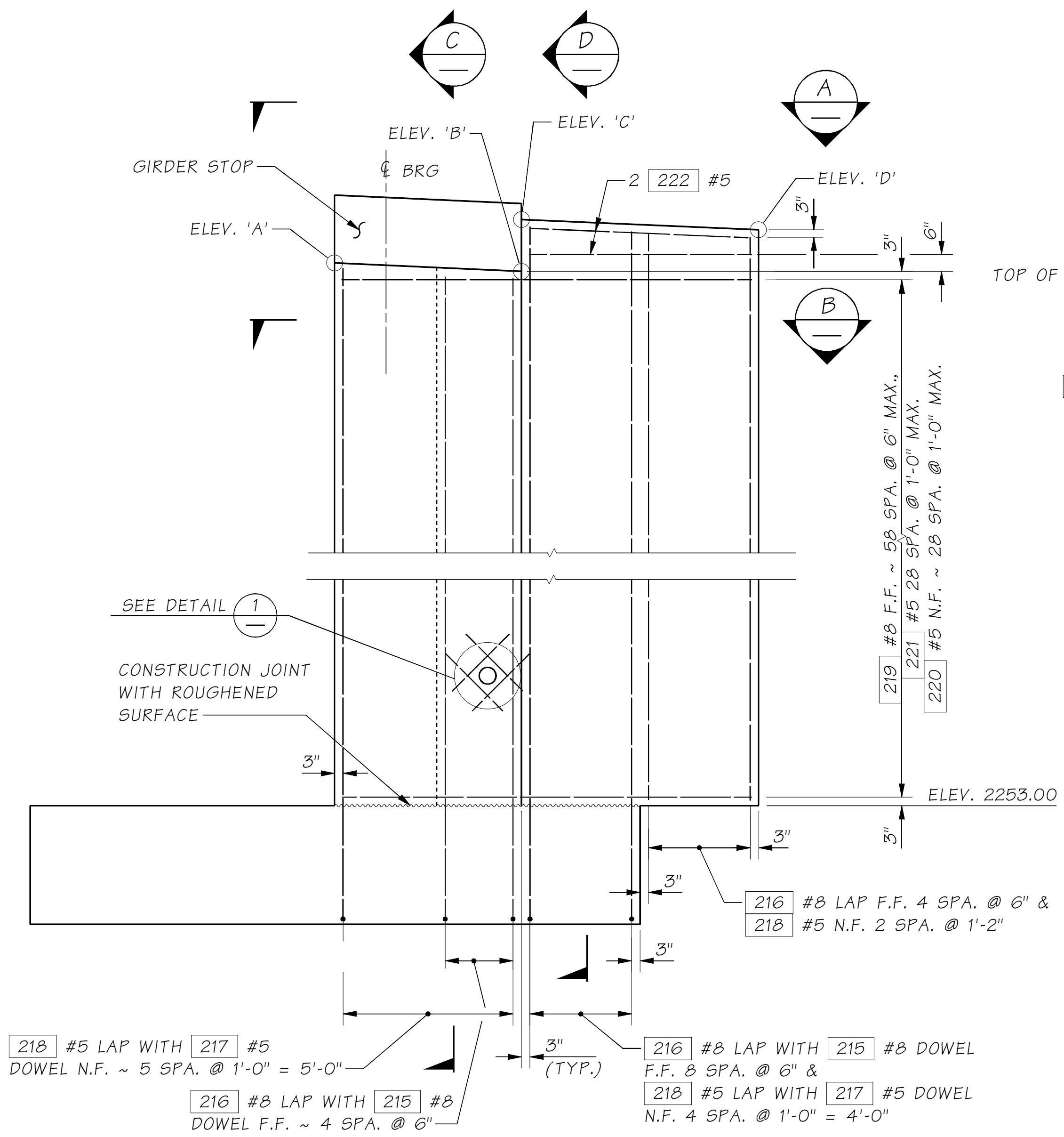
ELEVATION TABLE			
'A'	'B'	'C'	'D'
2279.34'	2279.09'	2280.62'	2280.32'

N.F. - NEAR FACE

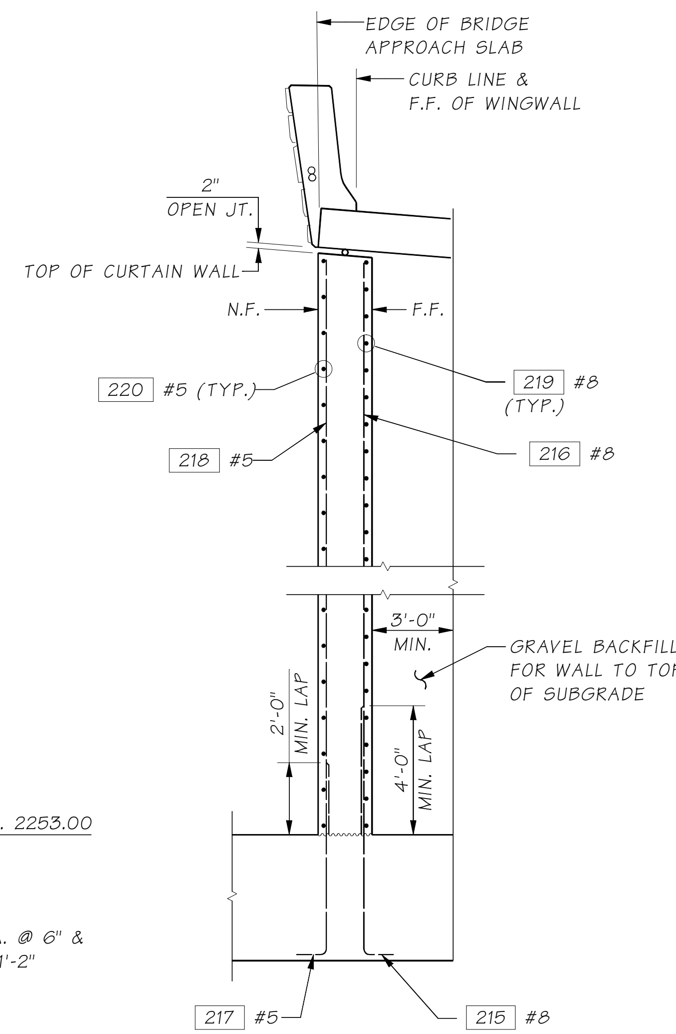
F.F. - FAR FACE

E.F. - EACH FACE

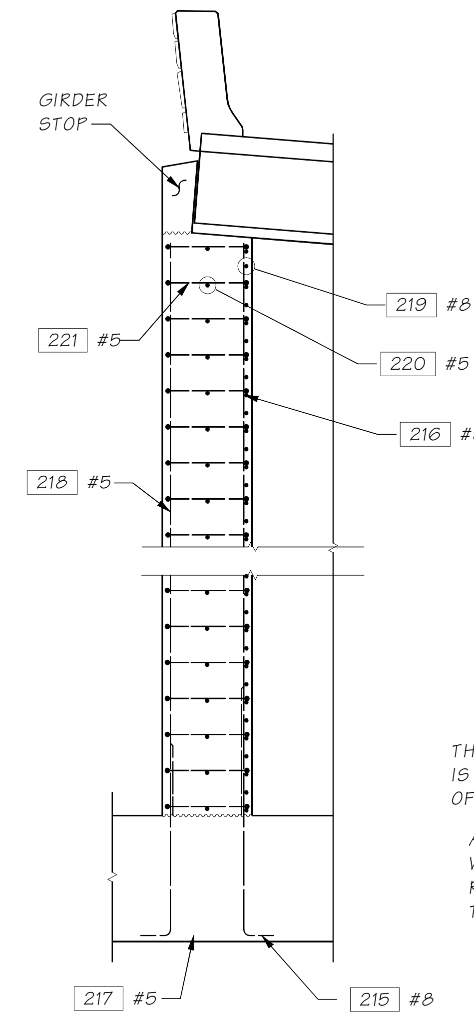
** - MEASURED ALONG N.F. OF WALL



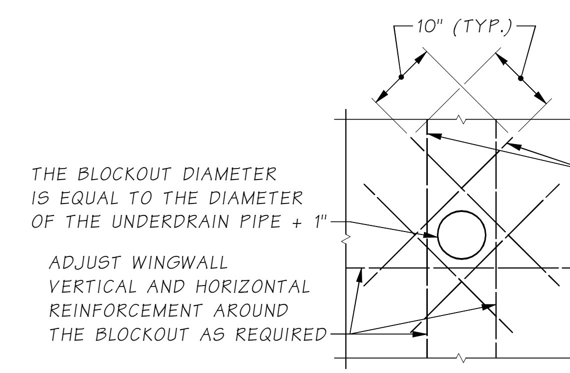
SE CURTAIN WALL ELEVATION



SECTION (D)



SECTION (C)



DETAIL (1)

SR I-90 FILE NO. ____ SHEET BK12

Bridge Design Engr.	Khaleghi, B		M:\Z-Team\I-90 PHASE 3 SPARKS RD EB\window files\SE CURTAIN WALL DETAILS.wnd			
Supervisor	Zeldenrust, RP					
Designed By	Liu, S	11/20				
Checked By	Barkley, J	01/22				
Detailed By	Uhde, T	11/20				
Bridge Projects Engr.						
Prelim. Plan By						
Architect/Specialist			DATE	REVISION	BY	APP'D

REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
10	WASH.			

JOB NUMBER 19Y007

CONTRACT NO.

P.E. STAMP BOX — RICHARD P. ZELDENRUST, STATE OF WASHINGTON, 25470, STRUCTURAL ENGINEER, PROFESSIONAL ENGINEER — SEE SHEET CT9 — DATE:

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX — BIJAN KHALEGHI, STATE OF WASHINGTON, 27695, STRUCTURAL ENGINEER, PROFESSIONAL ENGINEER — SEE SHEET CT9 — DATE:

Washington State Department of Transportation

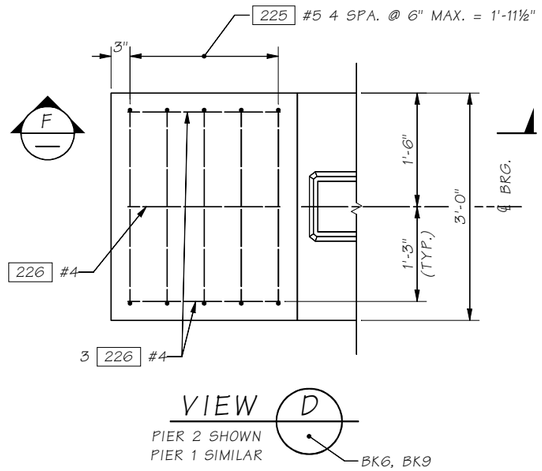
I-90
CABIN CR I/C TO W EASTON I/C PHASE 3
ADD LANES / WILDLIFE BRIDGES
SPARKS RD BRIDGE EB NO. 90/117S

SE CURTAIN WALL DETAILS

BRIDGE SHEET NO. BK12

SHEET 1601 OF 1783 SHEETS

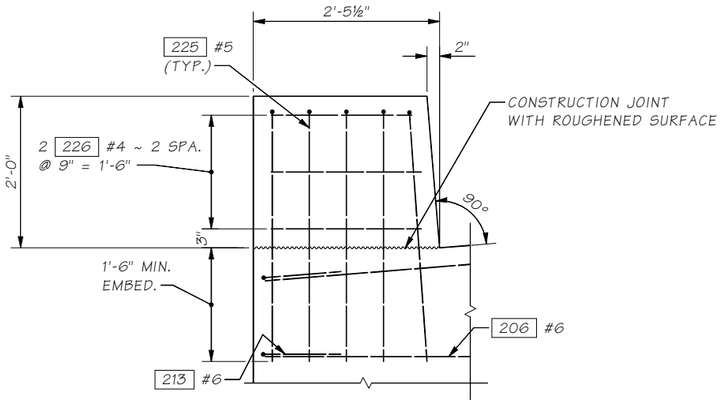
Mon Feb 07 11:55:37 2022



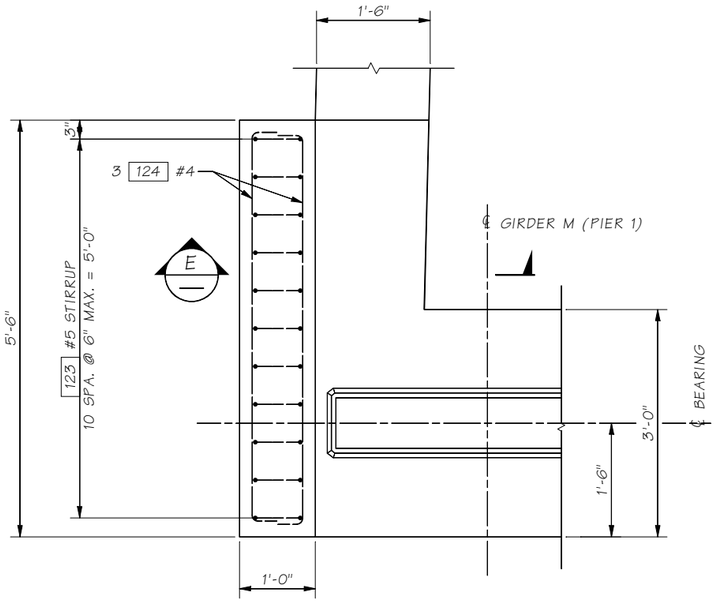
VIEW D

PIER 2 SHOWN
PIER 1 SIMILAR

BK6, BK9



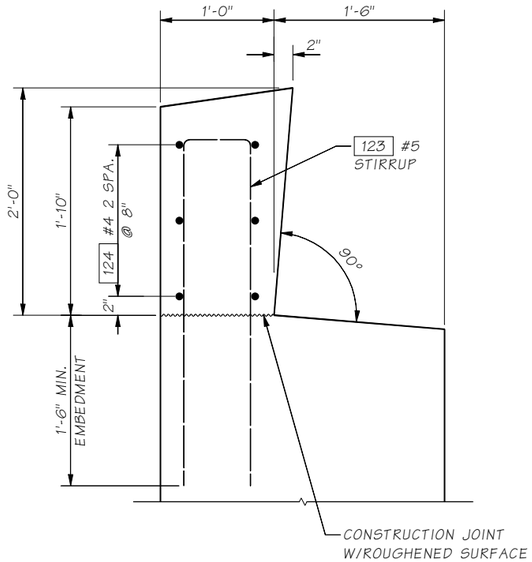
SECTION F



VIEW C

PIER 1 SHOWN
PIER 2 SIMILAR

BK6, BK9



SECTION E

SR I-90 FILE NO. ____ SHEET BK13

Bridge Design Engr.	Khaleghi, B	M:\Z-Team\I-90 PHASE 3 SPARKS RD EB\window files\BEARING DETAILS.wnd				REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor	Zeldenrust, RP					10	WASH.			
Designed By	Liu, S 11/20					JOB NUMBER 19Y007				
Checked By	Barkley, J 01/22									
Detailed By	Uhde, T 11/20					CONTRACT NO.				
Bridge Projects Engr.										
Prelim. Plan By										
Architect/Specialist		DATE	REVISION	BY	APP'D					

Mon Feb 07 11:55:37 2022

P.E. STAMP BOX
RICHARD P. ZELDENRUST
STATE OF WASHINGTON
25170
PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX
BIJAN KHALEGHI
STATE OF WASHINGTON
27695
STRUCTURAL ENGINEER
PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE

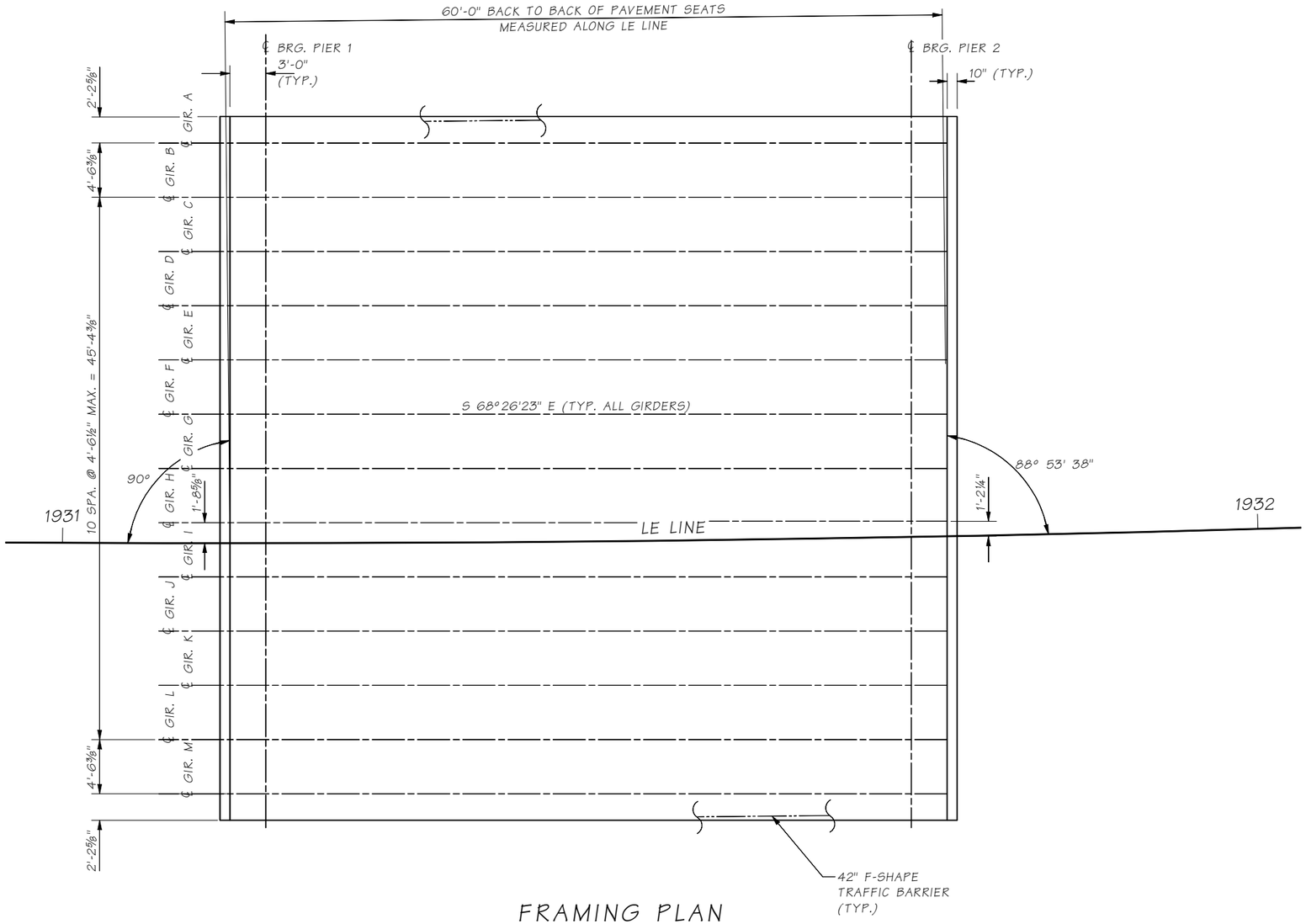
Washington State Department of Transportation

I-90
CABIN CR I/C TO W EASTON I/C PHASE 3
ADD LANES / WILDLIFE BRIDGES
SPARKS RD BRIDGE EB NO. 90/117S

GIRDER STOP DETAILS

BRIDGE SHEET NO. BK13

SHEET 1602 OF 1783 SHEETS



FRAMING PLAN

SR I-90 FILE NO. ____ SHEET BK14

Bridge Design Engr.	Khaleghi, B	M:\Z-Team\I-90 PHASE 3 SPARKS RD EB\window files\FRAMING PLAN.wnd				REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor	Zeldenrust, RP					10	WASH.			
Designed By	Liu, S 06/20					JOB NUMBER 19Y007				
Checked By	Barkley, J 01/22					CONTRACT NO.				
Detailed By	Uhde, T 06/20									
Bridge Projects Engr.										
Prelim. Plan By										
Architect/Specialist		DATE	REVISION	BY	APP'D					

P.E. STAMP BOX
RICHARD P. ZELDENRUST — STATE OF WASHINGTON — 24909 — STRUCTURAL ENGINEER — PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX
BIJAN KHALEGHI — STATE OF WASHINGTON — 37665 — STRUCTURAL ENGINEER — PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE

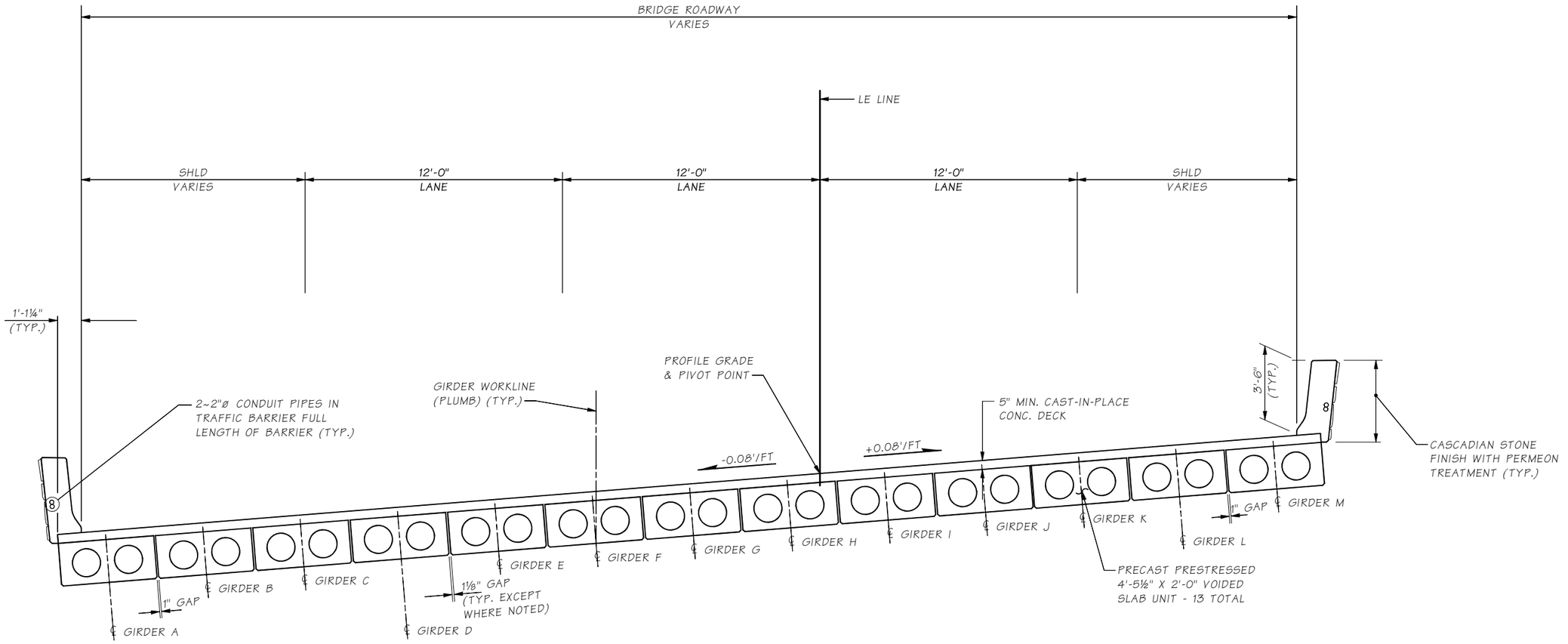
Washington State Department of Transportation

I-90
CABIN CR I/C TO W EASTON I/C PHASE 3
ADD LANES / WILDLIFE BRIDGES
SPARKS RD BRIDGE EB NO. 90/117S

FRAMING PLAN

BRIDGE SHEET NO. BK14
SHEET 1603 OF 1783 SHEETS

Mon Feb 07 11:55:37 2022



TYPICAL SECTION

SHOWN NEAR MID SPAN

SR I-90 FILE NO. ____ SHEET BK15

Bridge Design Engr.	Khaleghi, B	M:\Z-Team\I-90 PHASE 3 SPARKS RD EB\window files\TYPICAL SECTION.wnd				REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor	Zeldenrust, RP					10	WASH.			
Designed By	Liu, S 06/20					JOB NUMBER 19Y007				
Checked By	Barkley, J 01/22					CONTRACT NO.				
Detailed By	Uhde, T 06/20									
Bridge Projects Engr.										
Prelim. Plan By										
Architect/Specialist		DATE	REVISION	BY	APP'D					

Mon Feb 07 11:55:37 2022

P.E. STAMP BOX
RICHARD P. ZELDENRUST — STATE OF WASHINGTON — 39970 — STRUCTURAL ENGINEER — PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE:

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX
BIJAN KHALEGHI — STATE OF WASHINGTON — 27895 — STRUCTURAL ENGINEER — PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE:

Washington State Department of Transportation

I-90
CABIN CR I/C TO W EASTON I/C PHASE 3
ADD LANES / WILDLIFE BRIDGES
SPARKS RD BRIDGE EB NO. 90/117S

TYPICAL SECTION

BRIDGE SHEET NO. BK15

SHEET 1604 OF 1783 SHEETS

GIRDER SCHEDULE

SPAN	GIRDER	GIRDER HEIGHT H	GIRDER WIDTH W	PLAN LENGTH (ALONG GIRDER GRADE) (SEE GIRDER NOTE 1)	VOIDS: NUMBER	VOIDS: DIAMETER	GIRDER END DETAILS: END 1 TYPE	GIRDER END DETAILS: END 2 TYPE	GIRDER END DETAILS: θ1	GIRDER END DETAILS: θ2	MIN. CONC. COMP. STRENGTH: @ 28-DAYS F'C (KSI)	MIN. CONC. COMP. STRENGTH: @ RELEASE F'CI (KSI)	PRESTRESSING STRANDS (SEE GIRDER NOTES 2-4) ROW 1: PERMANENT STRANDS	ROW 1: EXTENDED NUMBER AND LENGTH	ROW 1: DEBONDED NUMBER AND LENGTH	ROW 2: PERMANENT STRANDS	ROW 2: EXTENDED NUMBER AND LENGTH	ROW 2: DEBONDED NUMBER AND LENGTH	TOP ROW: PERMANENT STRANDS	TOP ROW: TEMPORARY STRANDS	"A" DIMENSION AT ℄ BEARINGS	DECK SCREED CAMBER C	MIDSPAN VERTICAL DEFLECTION D: LOWER BOUND @ 40 DAYS	MIDSPAN VERTICAL DEFLECTION D: UPPER BOUND @ 120 DAYS	TRANSVERSE REINFORCEMENT ZONE 1: BAR SIZE	ZONE 1: SPACING	ZONE 1: LENGTH	ZONE 2: BAR SIZE	ZONE 2: SPACING	ZONE 2: LENGTH	ZONE 3: BAR SIZE	ZONE 3: SPACING	ZONE 3: LENGTH	LONGITUDINAL REINFORCEMENT G1: BAR SIZE	G1: NO. OF BARS	G2: BAR SIZE	G2: NO. OF BARS	SHIPPING AND HANDLING DETAILS: MAXIMUM MIDSPAN VERTICAL DEFLECTION AT SHIPPING	L	L1	L2	K_θ MINIMUM SHIPPING SUPPORT ROTATIONAL SPRING CONSTANT (KIP-IN/RAD)	W_{CC} MINIMUM SHIPPING SUPPORT CNTR.-TO-CNTR. WHEEL SPACING
1	A-M	2'-0"	4'-5½"	57'-9⅝"	2	1'-3¾"	A	A	90.55	90.55	10.0	7.5	19	4 @ 1'-4"	3 @ 3'-0"	3	-	-	2	4	6"	¼"	½"	1⅛"	#5	3"	1'-0"	#5	5"	10'-0"	#5	9"	⟨5⟩	#4	5	#4	5	1"	3'-0"	2'-0"	2'-0"	40,000.00	6'-0"

GIRDER NOTES

1. PLAN LENGTH SHALL BE INCREASED AS NECESSARY TO COMPENSATE FOR SHORTENING DUE TO PRESTRESS AND SHRINKAGE.

2. ALL STRANDS SHALL BE 0.6"ø AASHTO M203 GRADE 270 LOW RELAXATION STRANDS, JACKED TO 202.5 KSI (43.94 KIPS PER STRAND). STRANDS SHALL BE SYMMETRICAL ABOUT THE GIRDER CENTERLINE. EXTERIOR STRANDS IN EACH ROW SHALL BE FULLY BONDED.

3. SPACE EXTENDED STRANDS SYMMETRICALLY AND EVENLY ACROSS GIRDER WIDTH. STAGGER EXTENDED STRAND LOCATIONS WITH RESPECT TO GIRDERS IN ADJACENT SPANS.

4. DEBONDED STRANDS SHALL BE DEBONDED AT EACH GIRDER END FOR THE INDICATED LENGTH PARALLEL TO THE GIRDER CENTERLINE. DEBONDED STRANDS SHALL NOT BE EXTENDED PAST GIRDER ENDS. DEBONDED STRANDS SHALL BE SYMMETRICALLY PLACED ABOUT THE GIRDER CENTERLINE. DEBONDED LENGTHS OF PAIRS OF STRANDS THAT ARE SYMMETRICALLY POSITIONED ABOUT THE GIRDER CENTERLINE SHALL BE EQUAL.

⟨5⟩ = TO MIDSPAN.

SR I-90 FILE NO. ____ SHEET BK16

Bridge Design Engr.	Khaleghi, B		M:\Z-Team\I-90 PHASE 3 SPARKS RD EB\window files\SLAB GIRDER DETAIL 1.wnd		
Supervisor	Zeldenrust, RP				
Designed By	Liu, S	06/20			
Checked By	Barkley, J	01/22			
Detailed By	Uhde, T	06/20			
Bridge Projects Engr.					
Prelim. Plan By					
Architect/Specialist			DATE	REVISION	BY / APP'D

REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
10	WASH.			

JOB NUMBER 19Y007

CONTRACT NO.

P.E. STAMP BOX — RICHARD P. ZELDENRUST, STATE OF WASHINGTON, 25470, STRUCTURAL ENGINEER, PROFESSIONAL ENGINEER — SEE SHEET CT9 — DATE:

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX — BIJAN KHALEGHI, STATE OF WASHINGTON, 27695, STRUCTURAL ENGINEER, PROFESSIONAL ENGINEER — SEE SHEET CT9 — DATE:

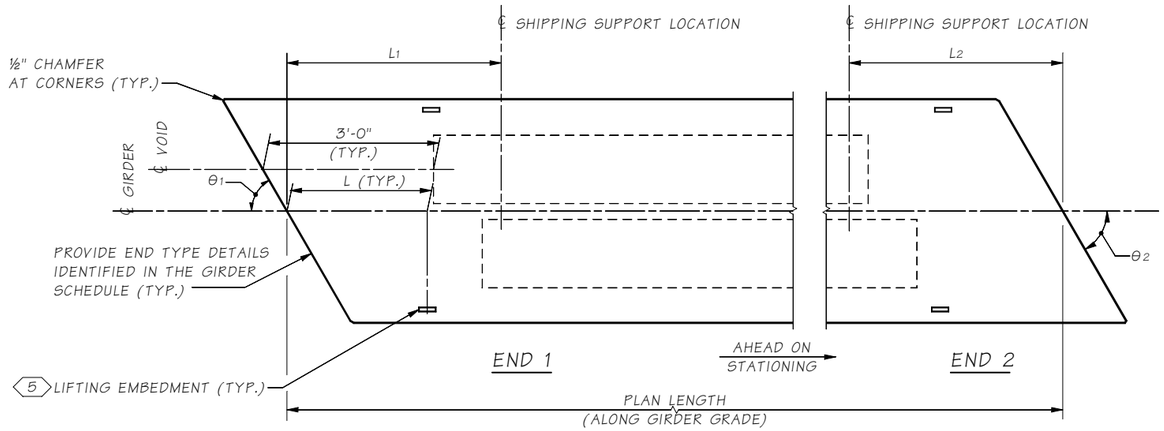
Washington State Department of Transportation

I-90
CABIN CR I/C TO W EASTON I/C PHASE 3
ADD LANES / WILDLIFE BRIDGES
SPARKS RD BRIDGE EB NO. 90/117S

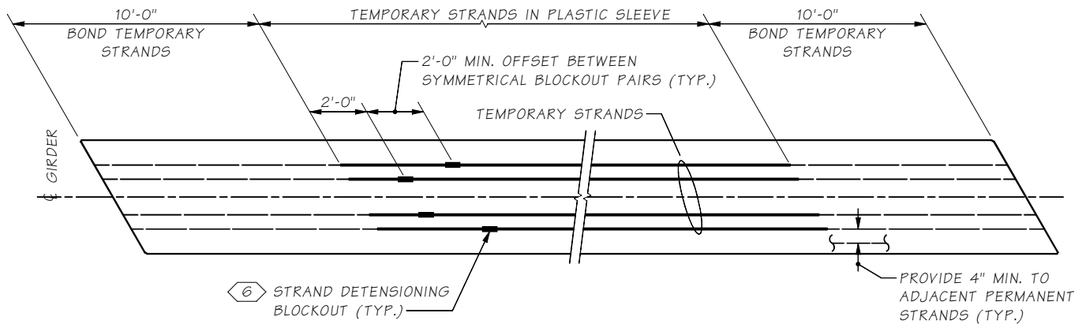
SLAB GIRDER DETAIL 1

BRIDGE SHEET NO. BK16

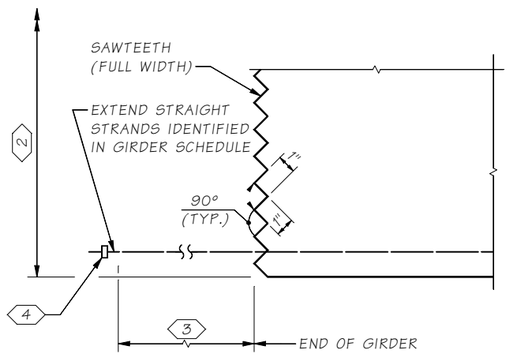
Mon Feb 07 11:55:38 2022



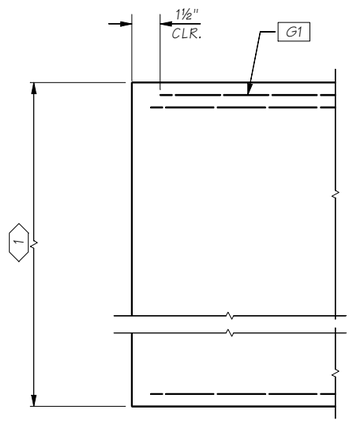
PLAN



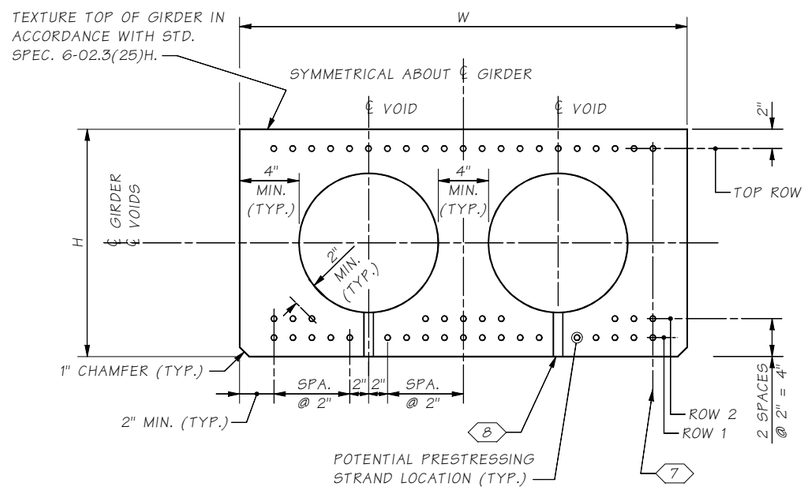
PLAN
TEMPORARY STRANDS



END TYPES A AND D



END TYPE B



TYPICAL GIRDER SECTION

GENERAL NOTES:

1. SEE GIRDER SCHEDULE FOR REQUIRED NUMBER OF TEMPORARY STRANDS. TEMPORARY STRANDS SHALL BE PLACED IN THE TOP ROW.
2. FOR GIRDERS ERECTED ON A LONGITUDINAL GRADE, STRAND DETENSIONING BLOCKOUTS SHALL BE PLACED AT THE LOW END OF THE GIRDER.
3. SEE "TEMPORARY STRAND CUTTING SEQUENCE" ON CONSTRUCTION SEQUENCE SHEET FOR TEMPORARY STRAND DETENSIONING PROCEDURE.

NOTES: 99 = SEE NOTE

1. CUT ALL STRANDS FLUSH WITH THE GIRDER END AND PAINT WITH AN APPROVED EPOXY RESIN, EXCEPT FOR EXTENDED STRANDS AS SHOWN.
2. CUT ALL STRANDS 1" BELOW CONCRETE SURFACE AND GROUT WITH AN APPROVED EPOXY GROUT.
3. EXTENSION LENGTH PARALLEL TO ℄ GIRDER. 1'-4" FOR END TYPE A. LENGTH AS IDENTIFIED IN THE GIRDER SCHEDULE FOR END TYPE D.
4. 1¹⁵⁄₁₆"ø MIN. STRAND CHUCK OR ASTM A108 2¾"ø x 1⅛" STRAND ANCHOR. ANCHOR STRAND WITH WEDGES BEFORE GIRDER ERECTION. VERIFY WEDGES ARE SEATED TIGHTLY IMMEDIATELY BEFORE PLACING DIAPHRAGM CONCRETE.
5. INSTALL LIFTING EMBEDMENTS IN ACCORDANCE WITH STD. SPEC. 6-02.3(25)L. REMOVE TO TOP OF GIRDER AFTER ERECTION.
6. 2½" x 6" x 2½" DEEP BLOCKOUT FOR STRAND DETENSIONING. FORM WITH EXPANDED POLYSTYRENE. REMOVE POLYSTYRENE JUST PRIOR TO CUTTING THE TEMPORARY STRANDS AND PREVENT MOISTURE FROM ENTERING THE BLOCKOUT AS DESCRIBED IN THE TEMPORARY STRAND CUTTING SEQUENCE.
7. EXTERIOR STRAND POSITIONS IN EACH ROW SHALL BE FILLED FIRST AND SHALL BE PERMANENT AND FULLY BONDED.
8. 1"ø POLYETHYLENE PIPE DRAIN AT BOTH ENDS OF EACH VOID. ENSURE WATER WITHIN VOID WILL DRAIN AFTER CASTING GIRDER.

SR I-90 FILE NO. ____ SHEET BK17

Bridge Design Engr.	Khaleghi, B	M:\Z-Team\I-90 PHASE 3 SPARKS RD EB\window files\SLAB GIRDER DETAIL 2.wnd				REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor	Zeldenrust, RP					10	WASH.			
Designed By	Liu, S 06/20					JOB NUMBER 19Y007				
Checked By	Barkley, J 01/22					CONTRACT NO.				
Detailed By	Uhde, T 06/20									
Bridge Projects Engr.										
Prelim. Plan By										
Architect/Specialist		DATE	REVISION	BY	APP'D					

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P.E. STAMP BOX
RICHARD P. ZELDENRUST — STATE OF WASHINGTON — 25409 — PROFESSIONAL ENGINEER — STRUCTURAL ENGINEER
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DATE

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX
BIJAN KHALEGHI — STATE OF WASHINGTON — 27695 — PROFESSIONAL ENGINEER — STRUCTURAL ENGINEER
SEE SHEET CT9
DATE

Washington State Department of Transportation

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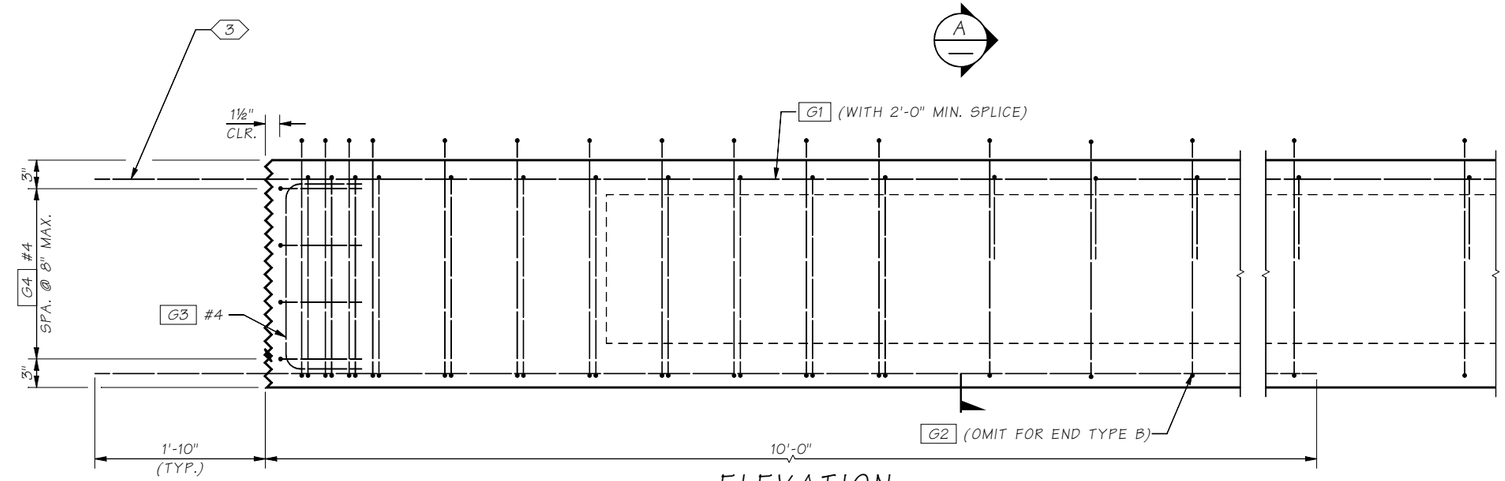
ADD LANES / WILDLIFE BRIDGES
SPARKS RD BRIDGE EB NO. 90/117S

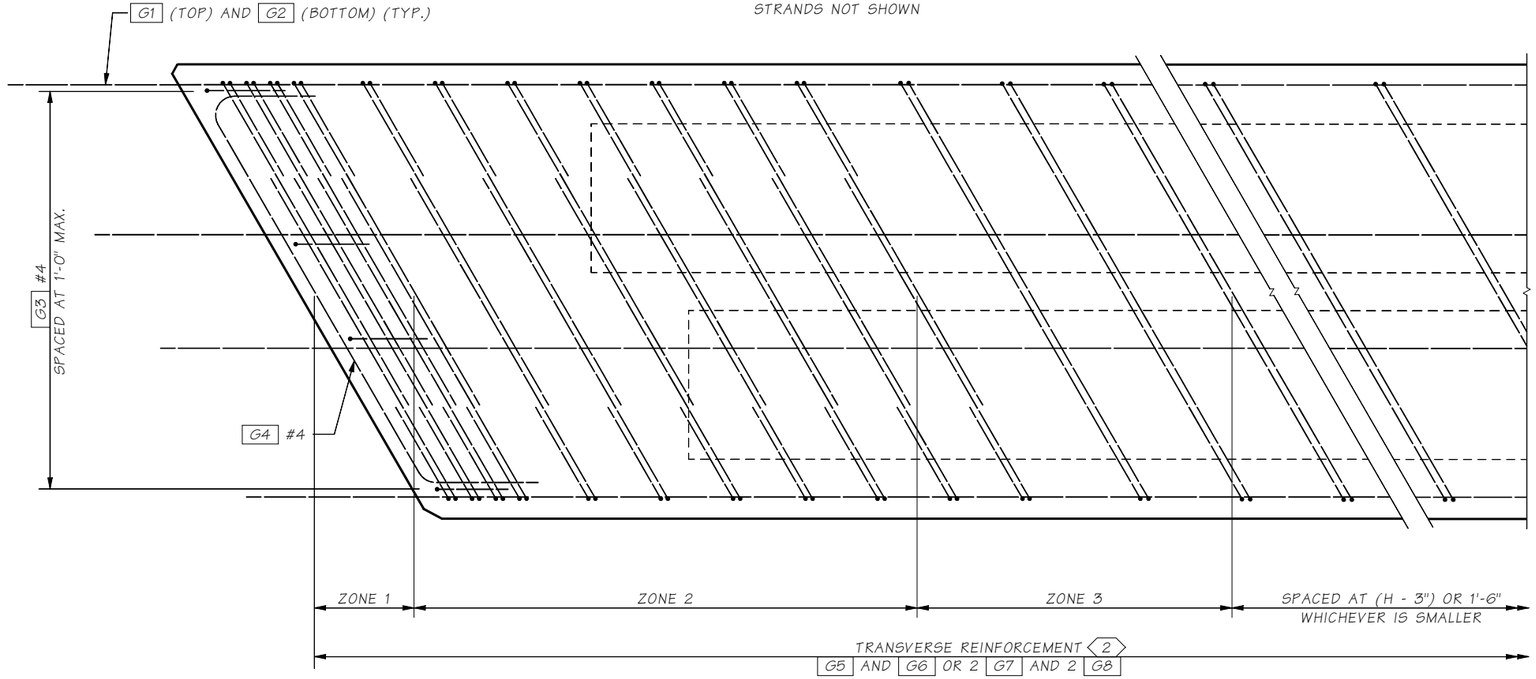
SLAB GIRDER DETAIL 2

BRIDGE SHEET NO. BK17
SHEET 1606 OF 1783 SHEETS



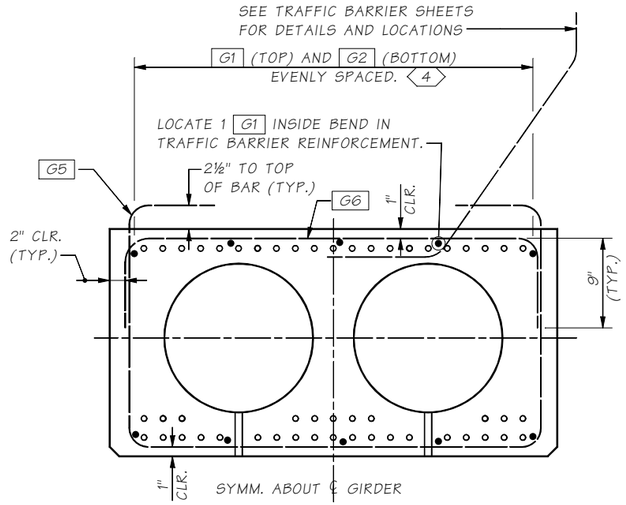
ELEVATION

STRANDS NOT SHOWN



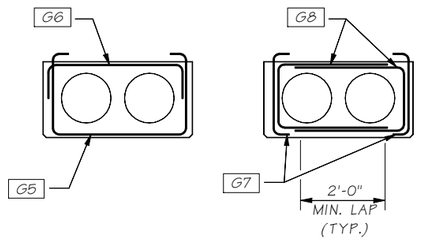
PLAN

1



SECTION A

G5 AND G6 SHOWN, 2 G7 AND 2 G8 SIMILAR.



TRANSVERSE REINFORCEMENT OPTIONS

GENERAL NOTES:

1. DEFORMED WELDED WIRE REINFORCEMENT MAY BE SUBSTITUTED FOR MILD REINFORCEMENT IN ACCORDANCE WITH STANDARD SPECIFICATION 6-02.3(25)A.

NOTES: 99 = SEE NOTE

1. TRAFFIC BARRIER BARS NOT SHOWN FOR CLARITY. SEE TRAFFIC BARRIER SHEETS FOR DETAILS AND LOCATIONS. OTHER END SIMILAR. STRANDS NOT SHOWN.
2. SEE GIRDER SCHEDULE FOR BAR SIZE AND SPACING AND LENGTH OF ZONES.
3. FIELD BEND G1 TO OBTAIN 1½" COVER AT PAVEMENT SEAT IF NECESSARY. DO NOT EXTEND AND PROVIDE 1½" CLR. TO GIRDER END FOR END TYPE B.
4. MAY BE BUNDLED IF SPACING DOES NOT EXCEED 1'-0". SEE GIRDER SCHEDULE.

SR I-90 FILE NO. SHEET BK18

Bridge Design Engr.	Khaleghi, B	M:\Z-Team\I-90 PHASE 3 SPARKS RD EB\window files\SLAB GIRDER DETAIL 3.wnd								
Supervisor	Zeldenrust, RP						REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Designed By	Liu, S 06/20						10	WASH.			
Checked By	Barkley, J 01/22						JOB NUMBER 19Y007				
Detailed By	Uhde, T 06/20						CONTRACT NO.				
Bridge Projects Engr.											
Prelim. Plan By											
Architect/Specialist		DATE	REVISION	BY	APP'D						

P.E. STAMP BOX — RICHARD P. ZELDENRUST — STATE OF WASHINGTON — 35480 — STRUCTURAL ENGINEER — PROFESSIONAL ENGINEER — SEE SHEET CT9 — DATE

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX — BIJAN KHALEGHI — STATE OF WASHINGTON — 37906 — STRUCTURAL ENGINEER — PROFESSIONAL ENGINEER — SEE SHEET CT9 — DATE

Washington State Department of Transportation

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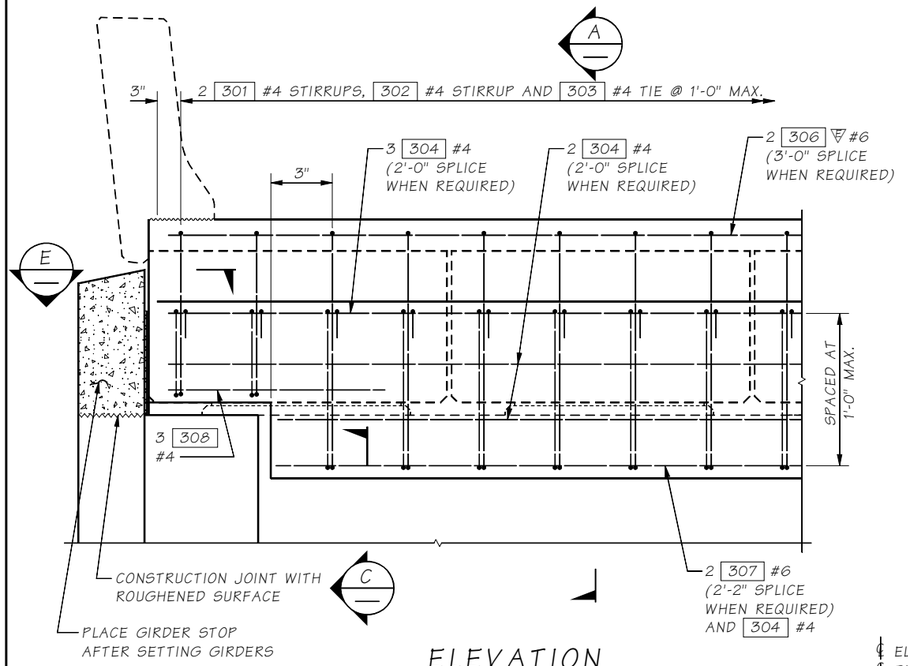
CABIN CR I/C TO W EASTON I/C PHASE 3
ADD LANES / WILDLIFE BRIDGES
SPARKS RD BRIDGE EB NO. 90/117S

SLAB GIRDER DETAIL 3

BRIDGE SHEET NO. BK18

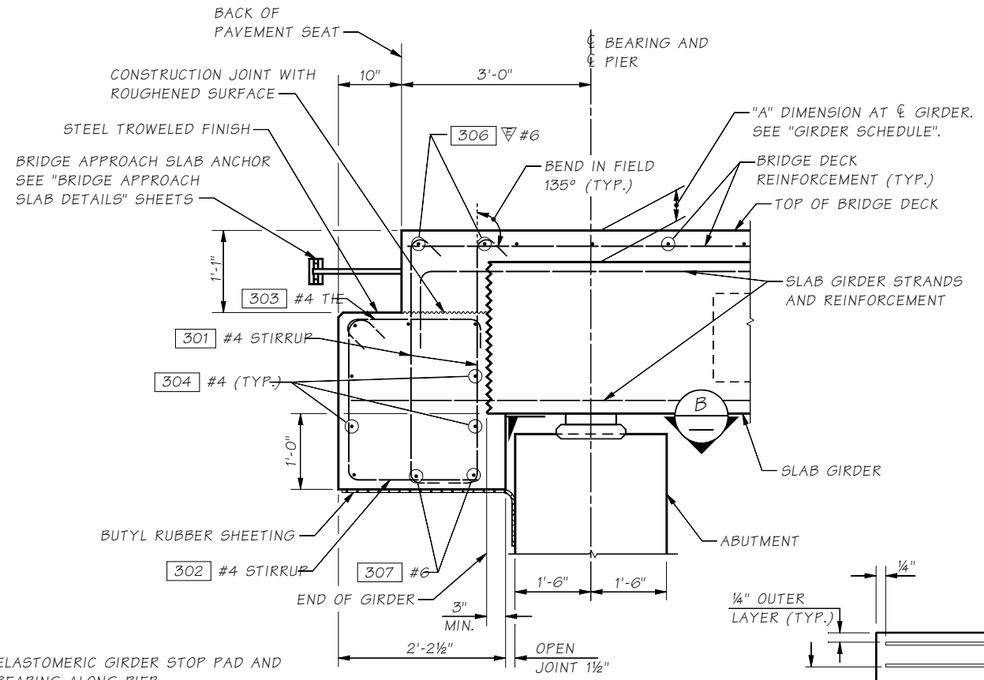
SHEET 1607 OF 1783 SHEETS

Mon Feb 07 11:55:38 2022



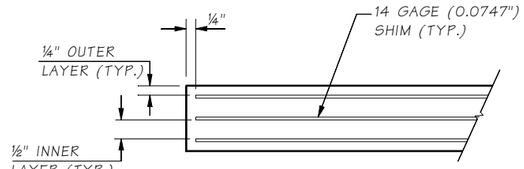
ELEVATION END DIAPHRAGM

DIMENSIONS ARE PARALLEL TO ℄ PIER

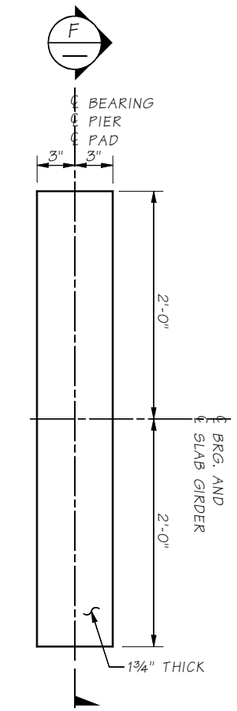


SECTION A

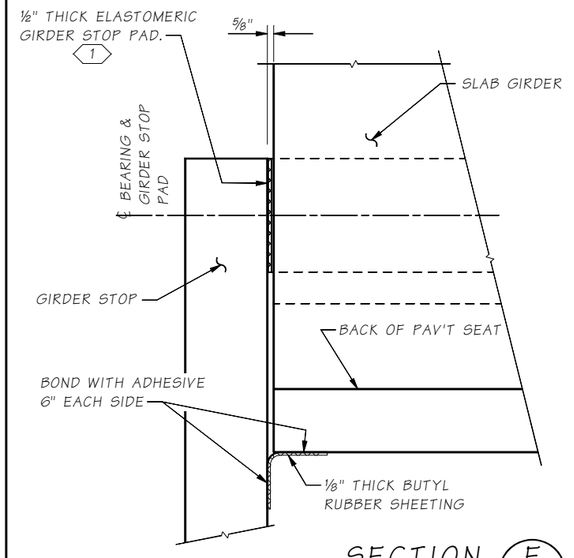
DIMENSIONS ARE NORMAL TO ℄ PIER



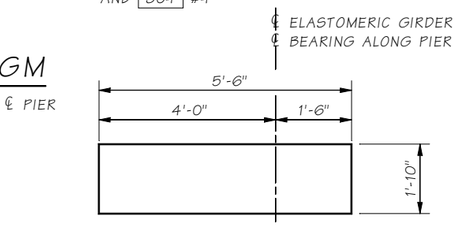
SECTION F



ELASTOMERIC BEARING PAD

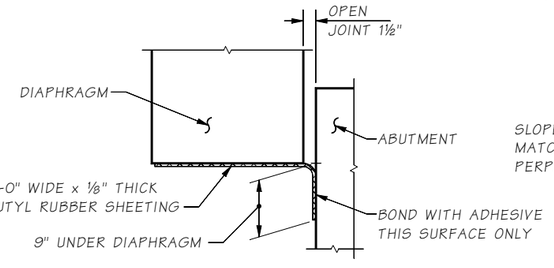


SECTION E

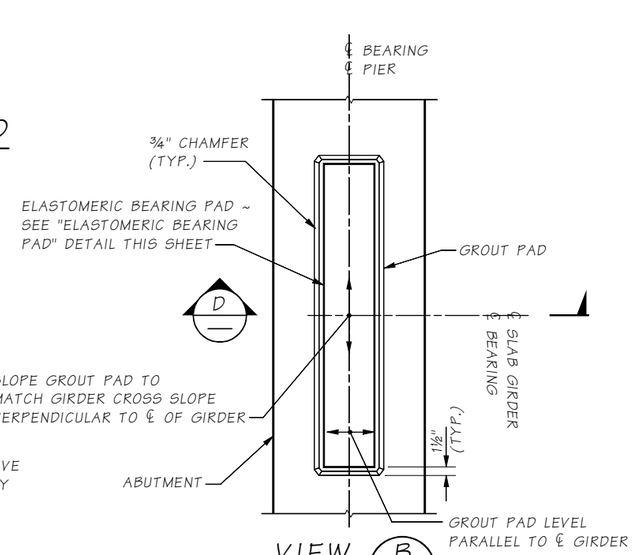


ELASTOMERIC GIRDER STOP PAD

SHEAR MODULUS = 165 PSI

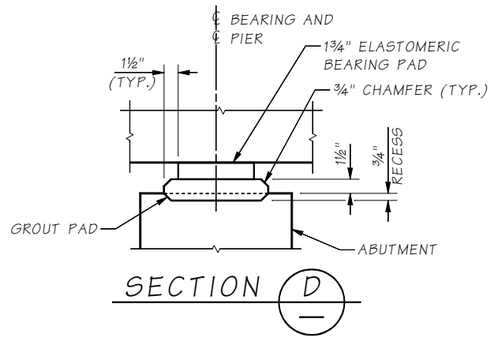


SECTION C



VIEW B

2



SECTION D

NOTES:

99 = SEE PLAN NOTE.

1 BOND TO GIRDER STOP WITH APPROVED ADHESIVE.

2 FULL BEARING OF SLAB UNIT IS REQUIRED AT EACH ELASTOMERIC BEARING

Bridge Design Engr.	Khaleghi, B		M:\Z-Team\I-90 PHASE 3 SPARKS RD EB\window files\SLAB GIRDER END DIAPHRAGM.wnd				REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor	Zeldenrust, RP						10	WASH.			
Designed By	Liu, S	06/20					JOB NUMBER 19Y007				
Checked By	Barkley, J	01/22					CONTRACT NO.				
Detailed By	Uhde, T	06/20									
Bridge Projects Engr.											
Prelim. Plan By											
Architect/Specialist			DATE	REVISION	BY	APP'D					

P.E. STAMP BOX — RICHARD P. ZELDENRUST, STATE OF WASHINGTON, 20170, STRUCTURAL ENGINEER, PROFESSIONAL ENGINEER — SEE SHEET CT9 — DATE

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX — BIJAN KHALEGHI, STATE OF WASHINGTON, 21966, STRUCTURAL ENGINEER, PROFESSIONAL ENGINEER — SEE SHEET CT9 — DATE

Washington State Department of Transportation

I-90
CABIN CR I/C TO W EASTON I/C PHASE 3
ADD LANES / WILDLIFE BRIDGES
SPARKS RD BRIDGE EB NO. 90/117S

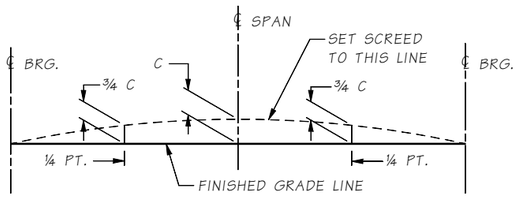
SLAB GIRDER END DIAPHRAGM

BRIDGE SHEET NO. BK19

SHEET 1608 OF 1783 SHEETS

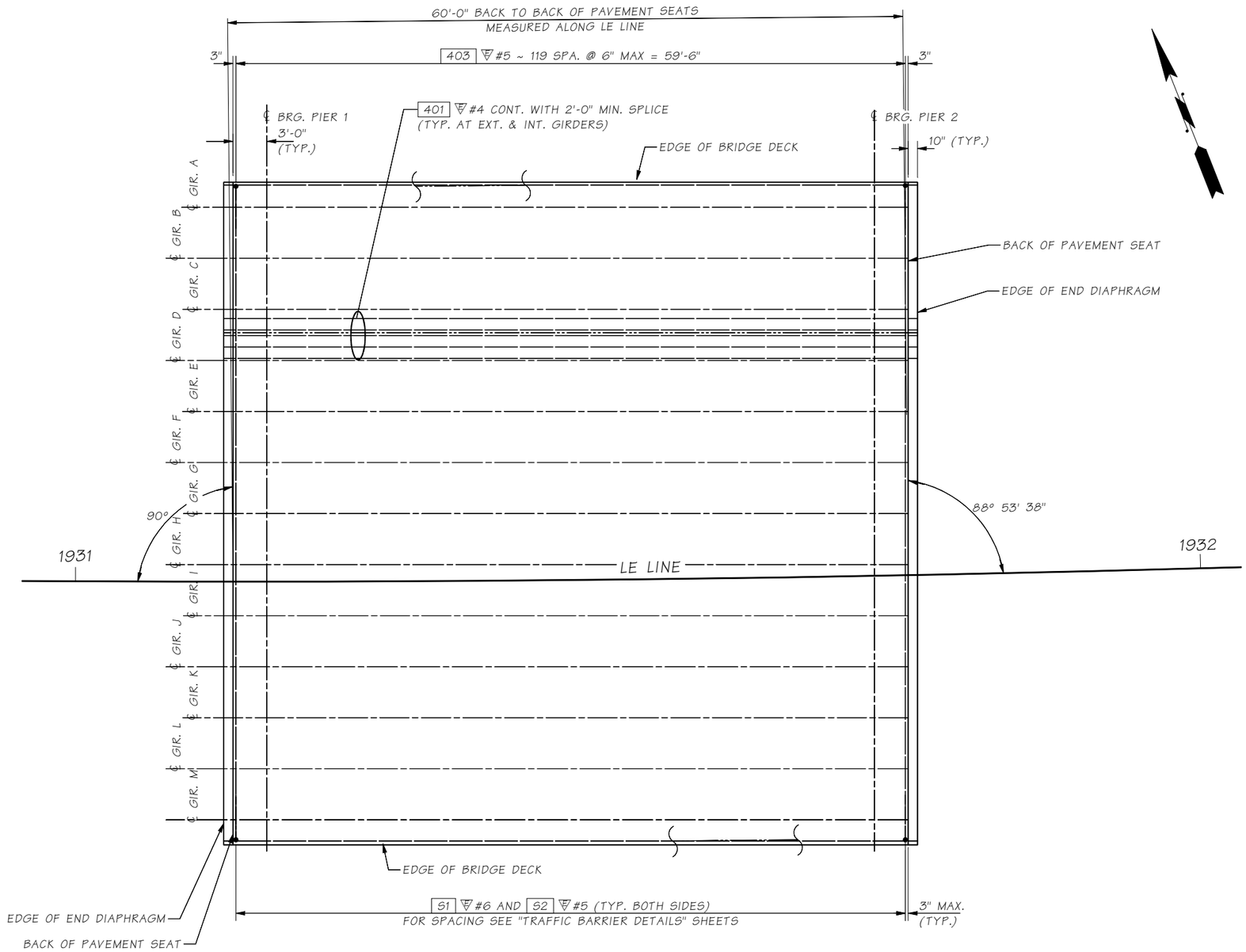
SR I-90 FILE NO. SHEET BK19

Mon Feb 07 11:55:39 2022



SCREED SETTING DIMENSIONS

FOR DIMENSION "C" SEE GIRDER SCHEDULE



PLAN
BRIDGE DECK REINFORCEMENT

BEARING OF ALL PIERS IS N 21° 33' 37" E

SR I-90 FILE NO. ____ SHEET BK20

Bridge Design Engr.	Khaleghi, B	M:\Z-Team\I-90 PHASE 3 SPARKS RD EB\window files\BRIDGE DECK REINF.wnd				REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor	Zeldenrust, RP					10	WASH.			
Designed By	Liu, S 06/20					JOB NUMBER 19Y007				
Checked By	Barkley, J 01/22					CONTRACT NO.				
Detailed By	Uhde, T 06/20									
Bridge Projects Engr.										
Prelim. Plan By										
Architect/Specialist		DATE	REVISION	BY	APP'D					

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P.E. STAMP BOX
RICHARD P. ZELDENRUST — STATE OF WASHINGTON — 25470 — PROFESSIONAL ENGINEER
SEE SHEET CT9
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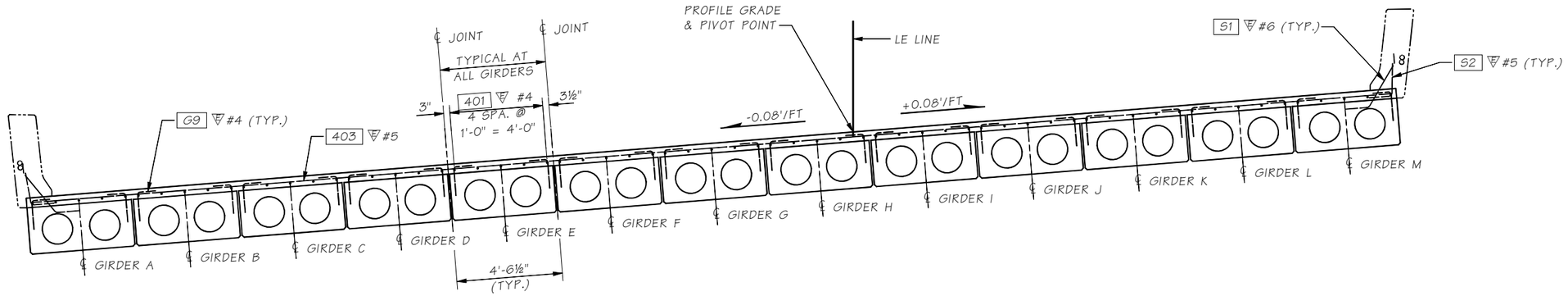
P.E. STAMP BOX
BIJAN KHALEGHI — STATE OF WASHINGTON — 27695 — PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE

Washington State Department of Transportation

I-90
CABIN CR I/C TO W EASTON I/C PHASE 3 ADD LANES / WILDLIFE BRIDGES
SPARKS RD BRIDGE EB NO. 90/117S

BRIDGE DECK REINFORCEMENT PLAN

BRIDGE SHEET NO. BK20
SHEET 1609 OF 1783 SHEETS



SECTION
BRIDGE DECK REINFORCEMENT

SR I-90 FILE NO. ____ SHEET BK21

Bridge Design Engr.	Khaleghi, B	M:\Z-Team\I-90 PHASE 3 SPARKS RD EB\window files\BRIDGE DECK REINF SECTION.wnd			REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS	P.E. STAMP BOX	BRIDGE AND STRUCTURES OFFICE
Supervisor	Zeldenrust, RP				10	WASH.				RICHARD P. ZELDENRUST, STATE OF WASHINGTON, 25470, PROFESSIONAL ENGINEER, STRUCTURAL ENGINEER	
Designed By	Liu, S 06/20				JOB NUMBER 19Y007					SEE SHEET CT9	
Checked By	Barkley, J 01/22				CONTRACT NO.					DATE:	
Detailed By	Uhde, T 06/20									P.E. STAMP BOX	
Bridge Projects Engr.										BILIAN KHALEGHI, STATE OF WASHINGTON, 37695, PROFESSIONAL ENGINEER, STRUCTURAL ENGINEER	
Prelim. Plan By										SEE SHEET CT9	
Architect/Specialist		DATE	REVISION	BY	APP'D					DATE:	

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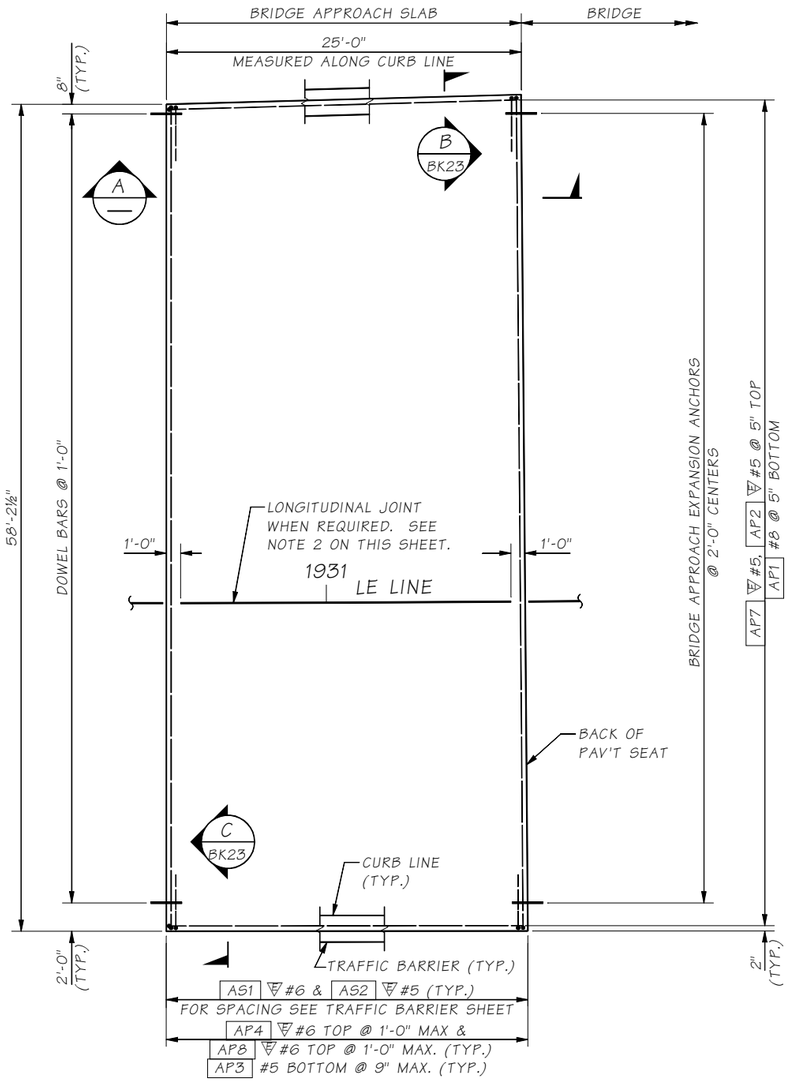
CABIN CR I/C TO W EASTON I/C PHASE 3 ADD LANES / WILDLIFE BRIDGES
SPARKS RD BRIDGE EB NO. 90/117S

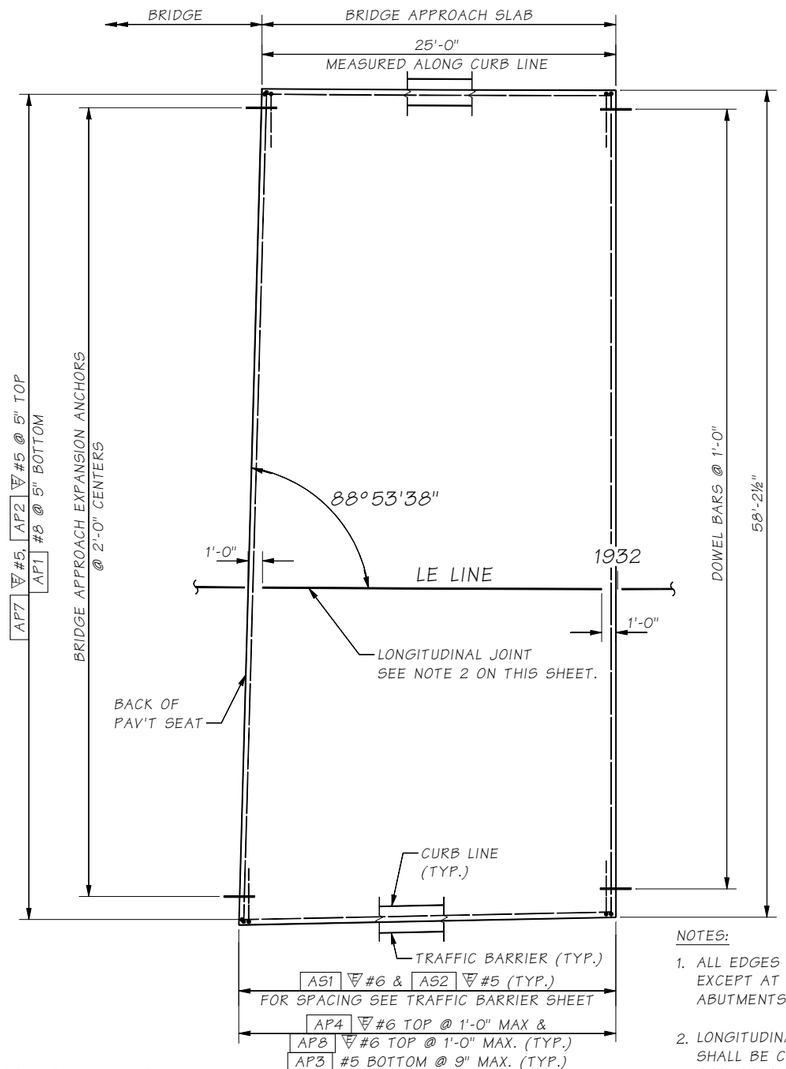
BRIDGE DECK REINFORCEMENT SECTION

BRIDGE SHEET NO. BK21

SHEET 1610 OF 1783 SHEETS



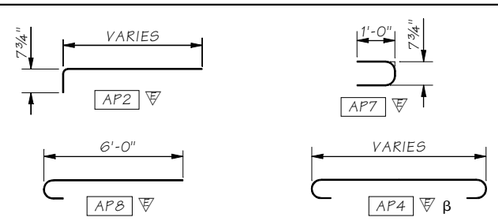
PLAN



NOTES:

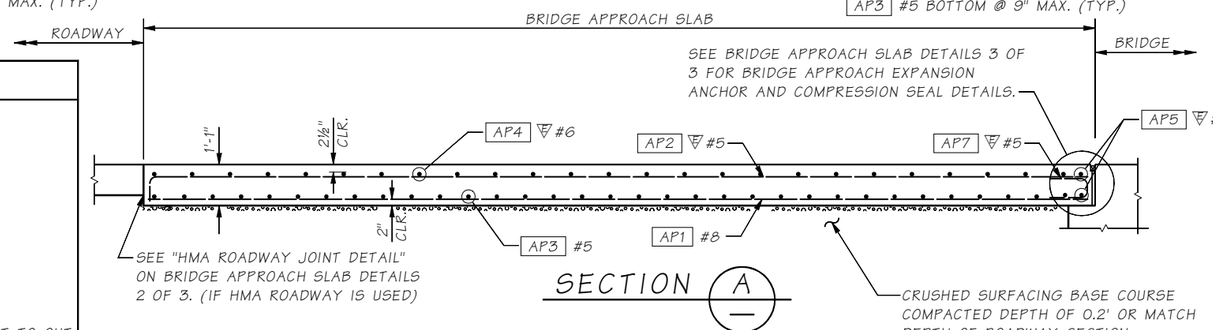
1. ALL EDGES OF BRIDGE APPROACH SLAB SHALL HAVE ½" RADIUS EXCEPT AT LONGITUDINAL JOINTS AND ADJACENT TO L-TYPE ABUTMENTS.
2. LONGITUDINAL JOINTS SHALL BE PLACED ON LANE LINES AND SHALL BE CONSTRUCTED AND SEALED IN ACCORDANCE WITH STD. SPEC. SECTION 5-05.3(8). JOINTS MAY BE EITHER A SAWCUT CRACK CONTROL JOINTOR A CONSTRUCTION JOINT. SAWCUT JOINTS SHALL TERMINATE 1'-0" BEFORE REACHING EDGE OF SLAB AND MUST BE SAW CUT AS SOON AS POSSIBLE AFTER PLACEMENT OF CONCRETE. SEE "LONGITUDINAL JOINT DETAIL" ON BRIDGE APPROACH SLAB DETAILS 2 OF 3.
3. THE MINIMUM LAP SPLICE OF #5 IS 2'-0", #5 IS 2'-6", #6 IS 3'-0", AND #8 IS 3'-3". ALL LAP SPLICES SHALL BE STAGGERED SO THAT NO MORE THAN 50% OF REBAR IS SPLICED AT THE SAME LOCATION. LAP SPLICES SHALL BE LOCATED WITHIN THE MIDDLE HALF OF THE BRIDGE APPROACH SLAB. OPTIONAL SPLICES ARE ALLOWED FOR AP4 #6.
4. FOR TRAFFIC BARRIER DETAILS, INCLUDING ANY BRIDGE APPROACH SLAB BLOCKOUT INFORMATION, SEE TRAFFIC BARRIER SHEETS.

BENDING DIAGRAM



= EPOXY COATED REINFORCING STEEL

NOTE: ALL DIMENSIONS ARE OUT TO OUT



SECTION A

Bridge Design Engr.	Khaleghi, B	M:\Z-Team\I-90 PHASE 3 SPARKS RD EB\window files\APPROACH SLAB DET 1.wnd								
Supervisor	Zeldenrust, RP									
Designed By	Liu, S 01/21									
Checked By	Barkley, J 01/22									
Detailed By	Uhde, T 01/21									
Bridge Projects Engr.										
Prelim. Plan By										
Architect/Specialist		DATE	REVISION	BY	APP'D					

REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
10	WASH.			
JOB NUMBER 19Y007				
CONTRACT NO.				

P.E. STAMP BOX
RICHARD P. ZELDENRUST — STATE OF WASHINGTON — 25970 — PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE:

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX
BIJAN KHALEGHI — STATE OF WASHINGTON — 27695 — STRUCTURAL ENGINEER — PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE:

Washington State Department of Transportation

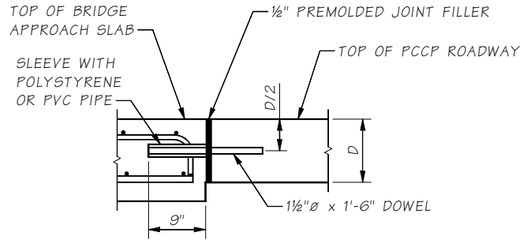
I-90
CABIN CR I/C TO W EASTON I/C PHASE 3
ADD LANES / WILDLIFE BRIDGES
SPARKS RD BRIDGE EB NO. 90/117S

APPROACH SLAB DETAILS 1 OF 3

BRIDGE SHEET NO. BK22
SHEET 1611 OF 1783 SHEETS

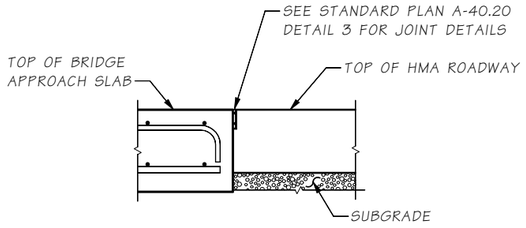
SR I-90 FILE NO. ____ SHEET BK22

Mon Feb 07 11:55:39 2022

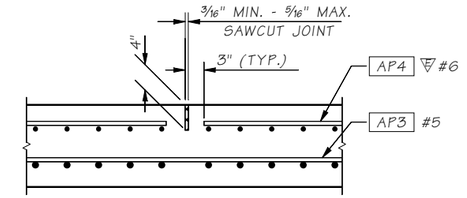


PCCP ROADWAY DOWEL BAR DETAIL

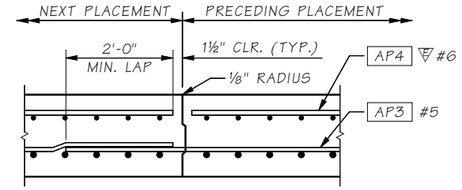
PCCP ROADWAY DOWELS SHALL BE INSTALLED PARALLEL TO ROADWAY AND TO EACH OTHER.



HMA ROADWAY JOINT DETAIL

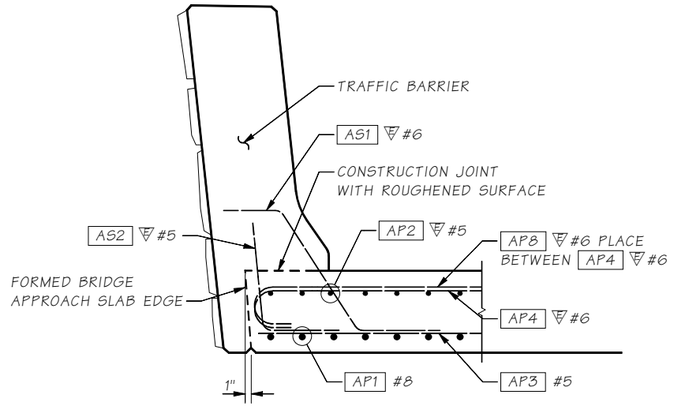


LONGITUDINAL JOINT DETAIL

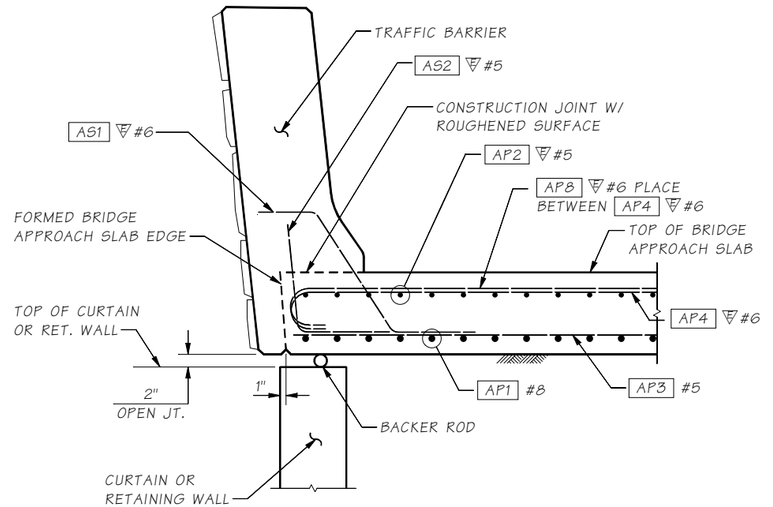


ALTERNATE LONGITUDINAL JOINT DETAIL

EDGE PRECEDING PLACEMENT ONLY WITH ⅛" RADIUS.



SECTION B
BK22



SECTION C
BK22

SR I-90 FILE NO. ____ SHEET BK23

Bridge Design Engr.	Khaleghi, B	M:\Z-Team\I-90 PHASE 3 SPARKS RD EB\window files\APPROACH SLAB DET 2.wnd				REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor	Zeldenrust, RP					10	WASH.			
Designed By	Liu, S 02/21					JOB NUMBER 19Y007				
Checked By	Barkley, J 01/22					CONTRACT NO.				
Detailed By	Uhde, T 02/21									
Bridge Projects Engr.										
Prelim. Plan By										
Architect/Specialist		DATE	REVISION	BY	APP'D					

P.E. STAMP BOX: RICHARD P. ZELDENRUST, STATE OF WASHINGTON, 18479, PROFESSIONAL ENGINEER — SEE SHEET CT9 — DATE

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX: BIJAN KHALEGHI, STATE OF WASHINGTON, 37665, PROFESSIONAL ENGINEER — SEE SHEET CT9 — DATE

Washington State Department of Transportation

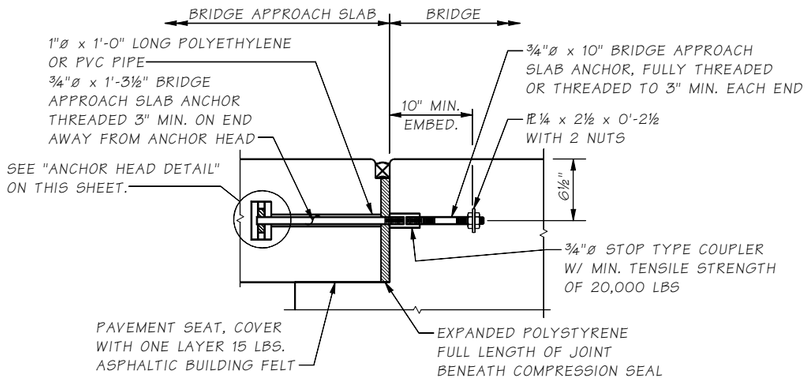
I-90
CABIN CR I/C TO W EASTON I/C PHASE 3
ADD LANES / WILDLIFE BRIDGES
SPARKS RD BRIDGE EB NO. 90/117S

APPROACH SLAB DETAILS 2 OF 3

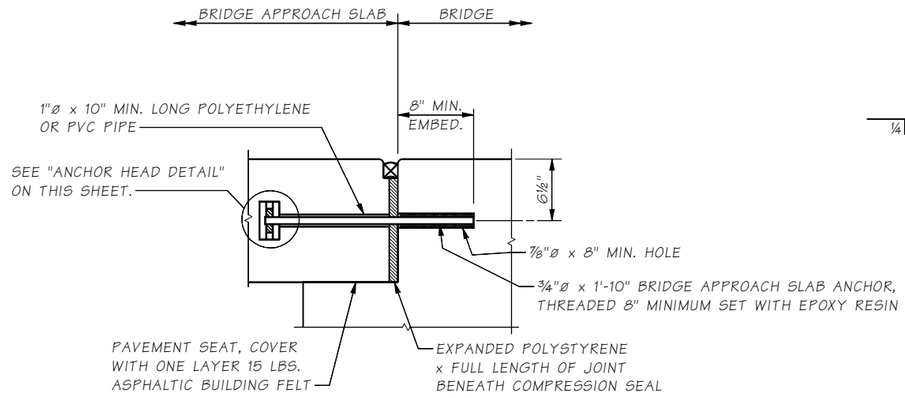
BRIDGE SHEET NO. BK23

SHEET 1612 OF 1783 SHEETS

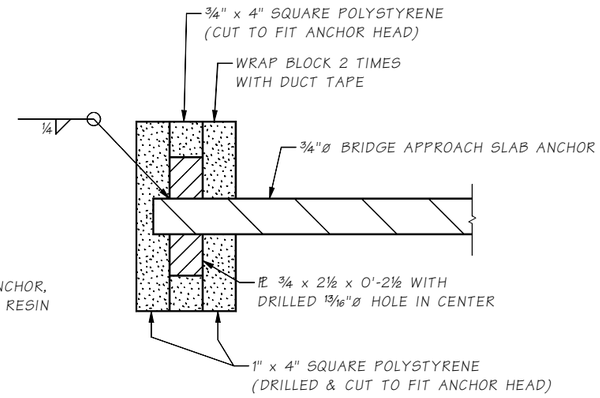
Mon Feb 07 11:55:39 2022



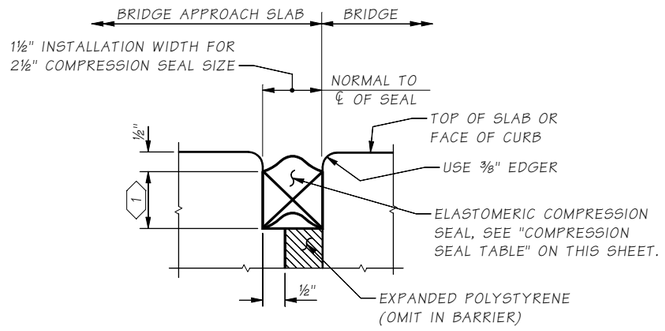
APPROACH EXPANSION ANCHOR - METHOD A



APPROACH EXPANSION ANCHOR - METHOD B

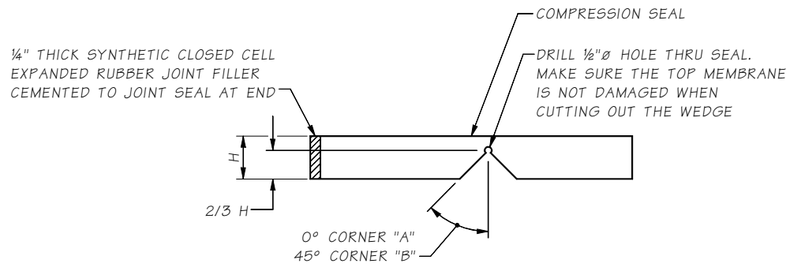


ANCHOR HEAD DETAIL



COMPRESSION SEAL DETAIL

EXPANSION JOINT AT BACK OF PAVEMENT SEAT

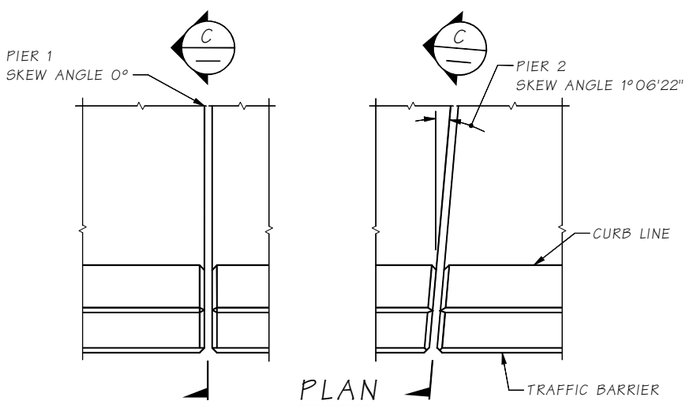


SEAL CUTTING DETAIL

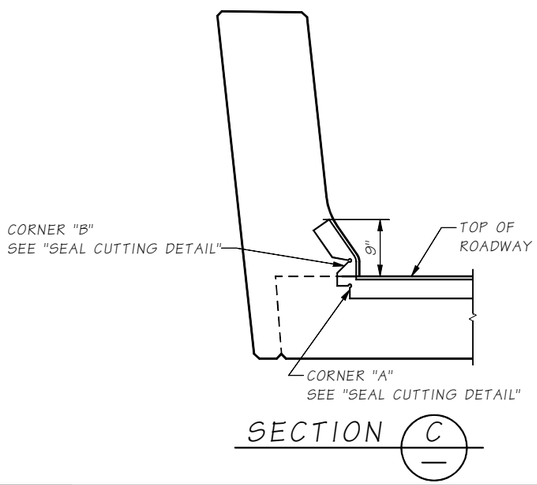
COMPRESSION SEAL TABLE

D.S. BROWN		WATSON BOWMAN ACME	
SEAL	WIDTH	SEAL	WIDTH
CV-2502	2½	WA-250	2½

TESTING SHALL BE PER ASTM D 2628 PRIOR TO USE.



PLAN
EXPANSION JOINT



SECTION C

GENERAL NOTES:

1. ALL METAL PARTS OF THE APPROACH EXPANSION ANCHOR SHALL RECEIVE ONE COAT OF PAINT CONFORMING TO STANDARD SPECIFICATION SECTION 9-08.1(2)F OR BE GALVANIZED IN ACCORDANCE WITH AASHTO M 232.
2. BRIDGE APPROACH SLAB ANCHORS SHALL BE INSTALLED PARALLEL TO ROADWAY AND TO EACH OTHER.

NOTES:

〈1〉 FULLY COMPRESSED SEAL HEIGHT, SEAL HEIGHT VARIES WITH MANUFACTURER, VERIFY PRIOR TO SLAB CONSTRUCTION

SR I-90 FILE NO. SHEET BK24

Bridge Design Engr.	Khaleghi, B		M:\Z-Team\I-90 PHASE 3 SPARKS RD EB\window files\APPROACH SLAB DET 3.wnd				REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor	Zeldenrust, RP						10	WASH.			
Designed By	Liu, S	02/21					JOB NUMBER 19Y007				
Checked By	Barkley, J	01/22					CONTRACT NO.				
Detailed By	Uhde, T	02/21									
Bridge Projects Engr.											
Prelim. Plan By											
Architect/Specialist			DATE	REVISION	BY	APP'D					

P.E. STAMP BOX
RICHARD P. ZELDENRUST — STATE OF WASHINGTON — 25479 — PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE:

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX
BIJAN KHALEGHI — STATE OF WASHINGTON — 37695 — STRUCTURAL ENGINEER — PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE:

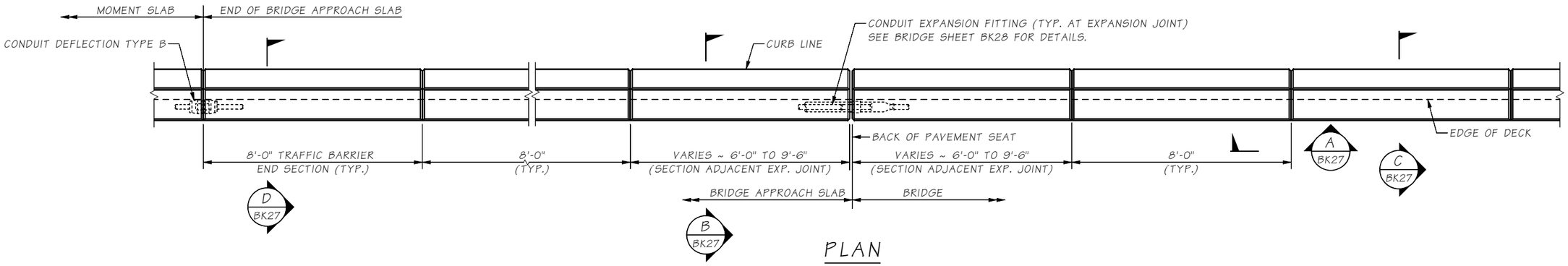
Washington State Department of Transportation

I-90
CABIN CR I/C TO W EASTON I/C PHASE 3
ADD LANES / WILDLIFE BRIDGES
SPARKS RD BRIDGE EB NO. 90/117S

APPROACH SLAB DETAILS 3 OF 3

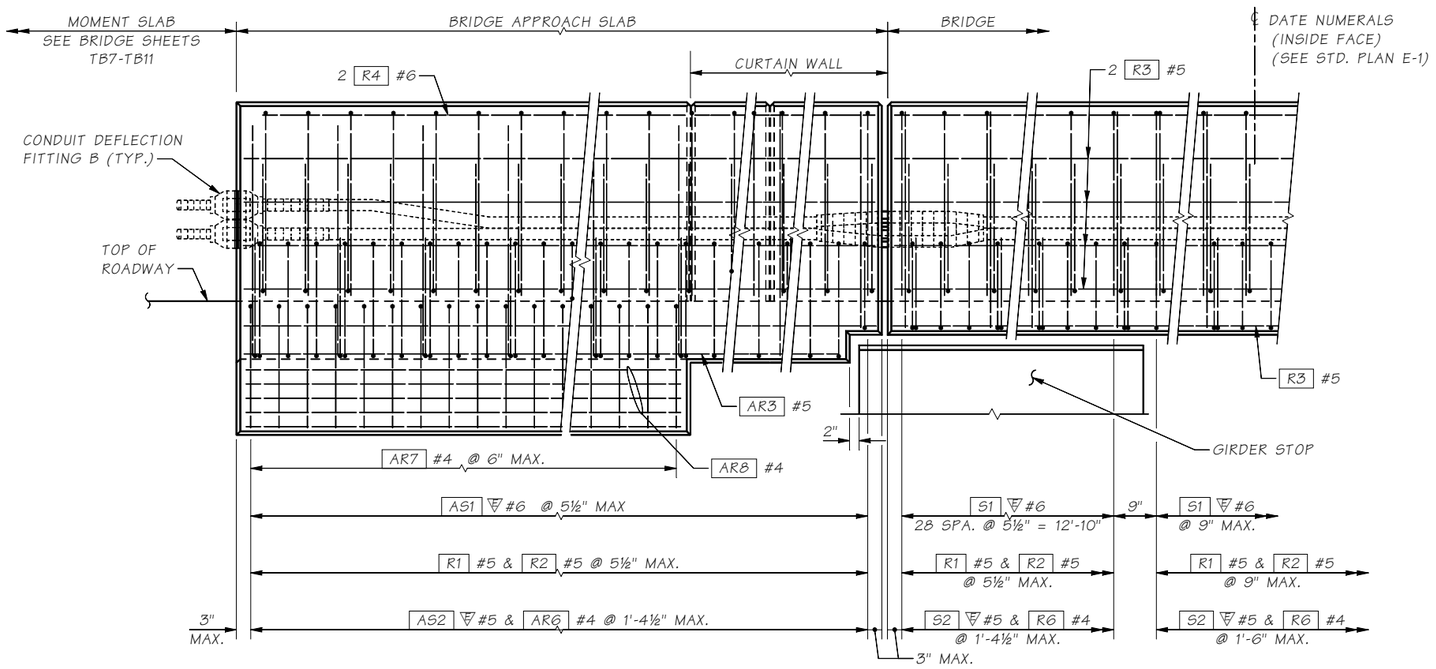
BRIDGE SHEET NO. BK24
SHEET 1613 OF 1783 SHEETS

Mon Feb 07 11:55:40 2022



PLAN
RIGHT SIDE TRAFFIC BARRIER

BARRIER CONTINUOUS BETWEEN ROADWAY EXPANSION JOINTS.
CONSTRUCTION JOINTS WITH SHEAR KEYS ARE PERMISSIBLE AT DUMMY JOINT LOCATIONS.
FORM JOINTS BETWEEN DUMMY JOINTS SHALL NOT BE PERMITTED.

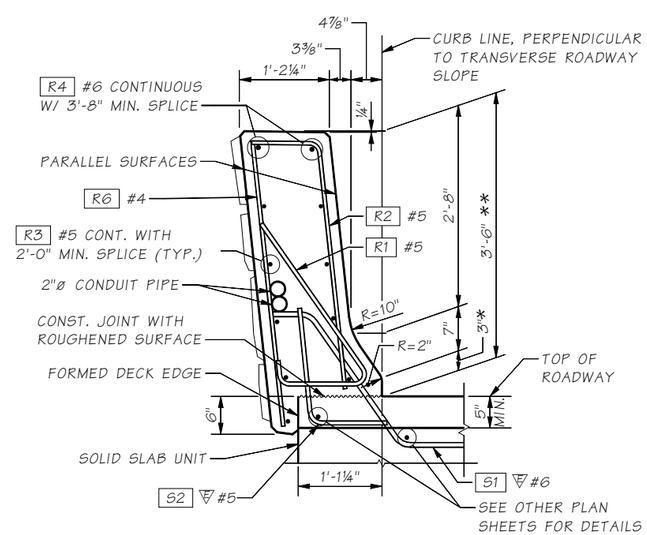


OUTSIDE ELEVATION
END OF TRAFFIC BARRIER

SHOWN WITH BRIDGE APPROACH SLAB

* TOE HEIGHT MAY VARY, 2" MIN TO 6" MAX.

** HEIGHT MAY VARY IF REQUIRED TO PROVIDE A PROFILE PLEASING TO THE EYE.



TYPICAL SECTION
TRAFFIC BARRIER

SHOWN ON BRIDGE

SR I-90 FILE NO. ____ SHEET BK25

Bridge Design Engr.	Khaleghi, B	M:\Z-Team\I-90 PHASE 3 SPARKS RD EB\window files\TRAFFIC BARRIER DET 1.wnd								
Supervisor	Zeldenrust, RP					REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Designed By	Liu, S 01/21					10	WASH.			
Checked By	Barkley, J 01/22					JOB NUMBER 19Y007				
Detailed By	Uhde, T 01/21									
Bridge Projects Engr.						CONTRACT NO.				
Prelim. Plan By										
Architect/Specialist		DATE	REVISION	BY	APP'D					

Mon Feb 07 11:55:40 2022

P.E. STAMP BOX: RICHARD P. ZELDENRUST, STATE OF WASHINGTON, 20470, PROFESSIONAL ENGINEER, STRUCTURAL ENGINEER — SEE SHEET CT9 — DATE

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX: BIJAN KHALEGHI, STATE OF WASHINGTON, 27090, PROFESSIONAL ENGINEER, STRUCTURAL ENGINEER — SEE SHEET CT9 — DATE

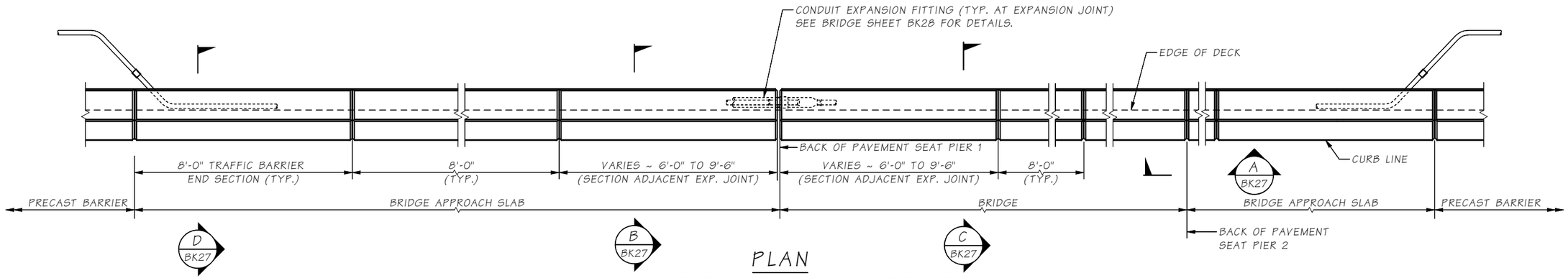
Washington State Department of Transportation

I-90
CABIN CR I/C TO W EASTON I/C PHASE 3
ADD LANES / WILDLIFE BRIDGES
SPARKS RD BRIDGE EB NO. 90/117S

TRAFFIC BARRIER - SHAPE F 42 IN.
DETAILS 1 OF 4

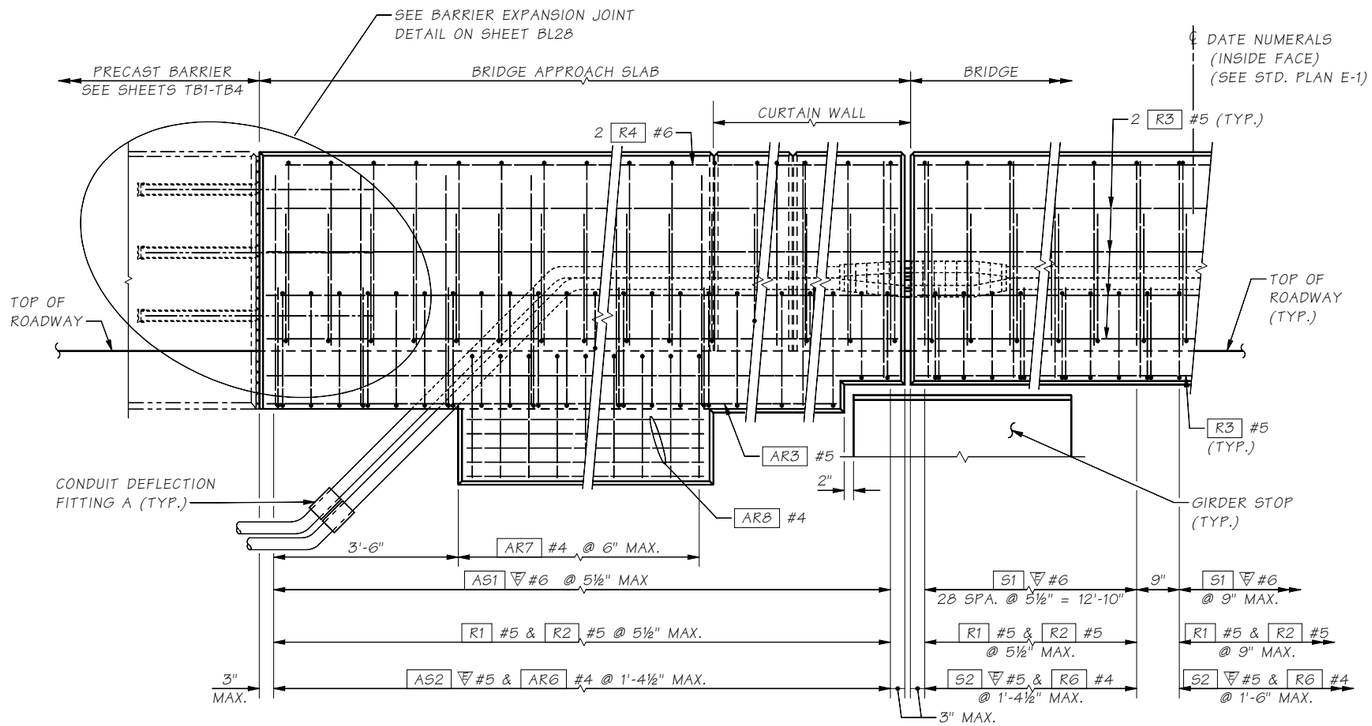
BRIDGE SHEET NO. BK25

SHEET 1614 OF 1783 SHEETS



PLAN
LEFT SIDE TRAFFIC BARRIER

BARRIER CONTINUOUS BETWEEN ROADWAY EXPANSION JOINTS.
CONSTRUCTION JOINTS WITH SHEAR KEYS ARE PERMISSIBLE AT DUMMY JOINT LOCATIONS.
FORM JOINTS BETWEEN DUMMY JOINTS SHALL NOT BE PERMITTED.



OUTSIDE ELEVATION
LEFT SIDE TRAFFIC BARRIER

SHOWN WITH BRIDGE APPROACH SLAB

SR I-90 FILE NO. SHEET BK26

Bridge Design Engr.	Khaleghi, B	M:\Z-Team\I-90 PHASE 3 SPARKS RD EB\window files\TRAFFIC BARRIER DET 4.wnd				REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor	Zeldenrust, RP					10	WASH.			
Designed By	Barkley, J 02/22					JOB NUMBER 19Y007				
Checked By	Barkley, J 01/22									
Detailed By	Uhde, T 02/22					CONTRACT NO.				
Bridge Projects Engr.										
Prelim. Plan By										
Architect/Specialist		DATE	REVISION	BY	APP'D					

Mon Feb 07 11:55:40 2022

P.E. STAMP BOX — RICHARD P. ZELDENRUST — STATE OF WASHINGTON — 25478 — PROFESSIONAL ENGINEER
SEE SHEET CT9 DATE

BRIDGE AND STRUCTURES OFFICE

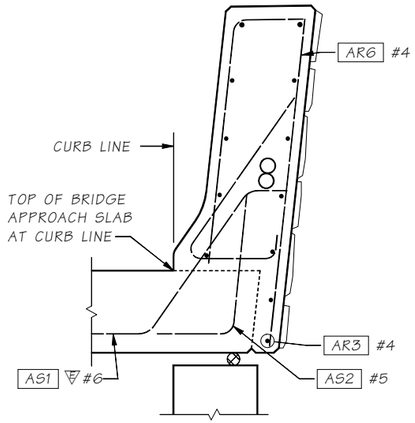
P.E. STAMP BOX — BIJAN KHALEGHI — STATE OF WASHINGTON — 27066 — PROFESSIONAL ENGINEER
SEE SHEET CT9 DATE

Washington State Department of Transportation

I-90
CABIN CR I/C TO W EASTON I/C PHASE 3
ADD LANES / WILDLIFE BRIDGES
SPARKS RD BRIDGE EB NO. 90/117S

TRAFFIC BARRIER DETAILS 2 OF 4

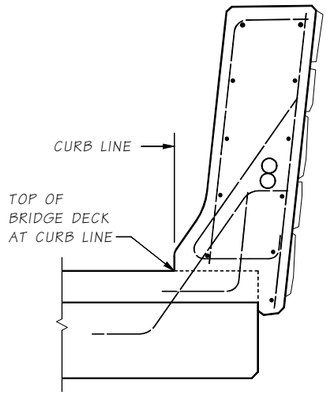
BRIDGE SHEET NO. BK26
SHEET 1615 OF 1783 SHEETS



SECTION B APPROACH SLAB AT CURTAIN WALL

BK25, BK26

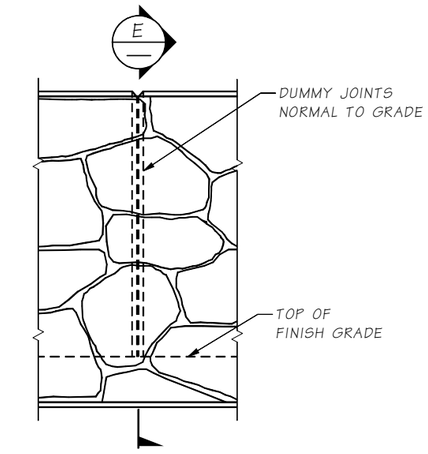
FOR DETAILS NOT SHOWN SEE "OUTSIDE ELEVATION" AND "TYPICAL SECTION - TRAFFIC BARRIER"



SECTION C BRIDGE

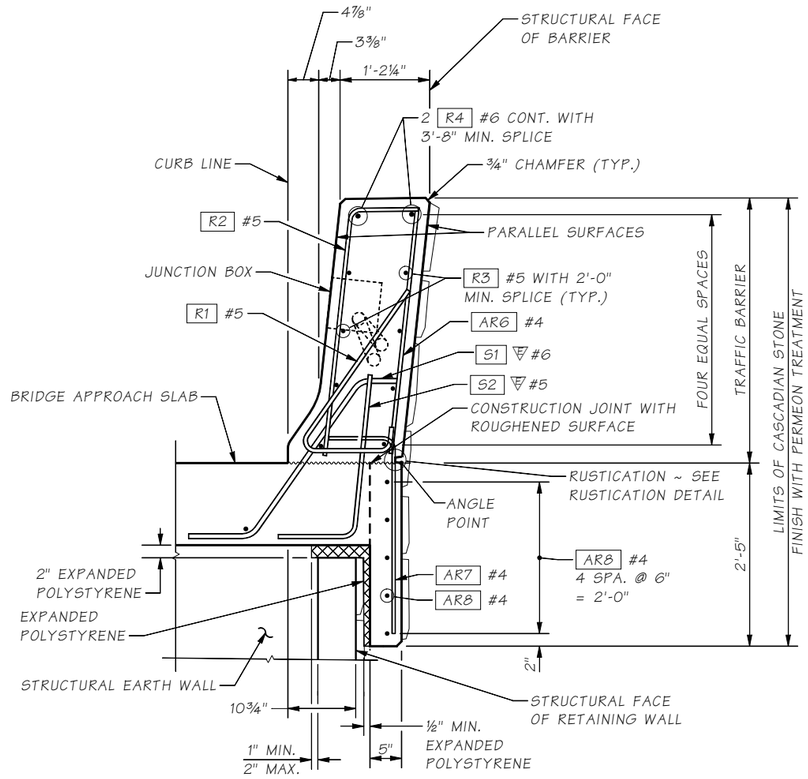
BK25, BK26

FOR DETAILS NOT SHOWN SEE "OUTSIDE ELEVATION" AND "TYPICAL SECTION - TRAFFIC BARRIER"



VIEW A

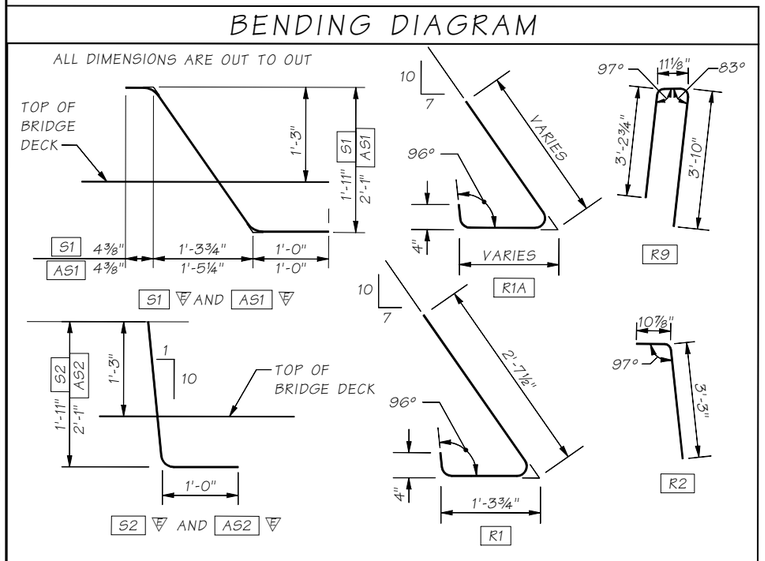
BK25, BK26



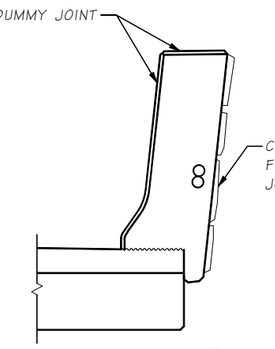
SECTION D APPROACH SLAB AT RETAINING WALL

BK25, BK26

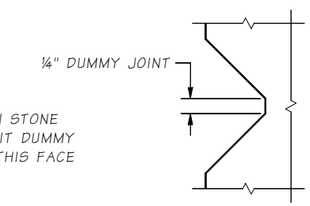
BENDING DIAGRAM



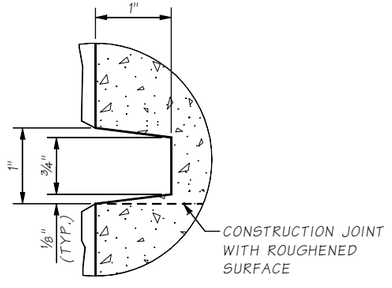
FOR W1 & W2 BARS SEE WINGWALL OR RETAINING WALL PLANS.



SECTION E



DUMMY JOINT DETAIL



RUSTICATION DETAIL

NOTES:

1. BLOCKOUT WIDTH MAY BE INCREASED TO 6" TO ALLOW CONDUITS OF A LARGER DIAMETER THAN 2" TO EXIT BARRIER OR WALL WITHOUT REBAR STEEL CONFLICT.

SR I-90 FILE NO. SHEET BK27

Bridge Design Engr.	Khaleghi, B	M:\Z-Team\I-90 PHASE 3 SPARKS RD EB\window files\TRAFFIC BARRIER DET 2.wnd				REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor	Zeldenrust, RP					10	WASH.			
Designed By	Liu, S 01/21					JOB NUMBER 19Y007				
Checked By	Barkley, J 01/22					CONTRACT NO.				
Detailed By	Uhde, T 01/21									
Bridge Projects Engr.										
Prelim. Plan By										
Architect/Specialist		DATE	REVISION	BY	APP'D					

Mon Feb 07 11:55:41 2022

RICHARD P. ZELDENRUST — STATE OF WASHINGTON — 25470 — PROFESSIONAL ENGINEER — P.E. STAMP BOX — SEE SHEET CT9 — DATE

BRIDGE AND STRUCTURES OFFICE

BILIAN KHALEGHI — STATE OF WASHINGTON — 37695 — PROFESSIONAL ENGINEER — P.E. STAMP BOX — SEE SHEET CT9 — DATE

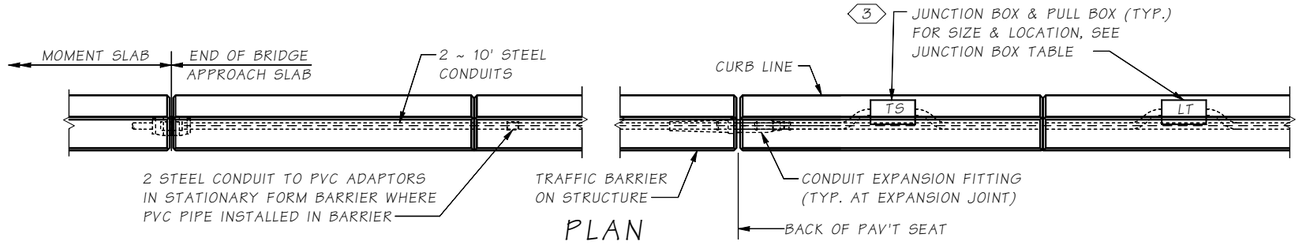
Washington State Department of Transportation

I-90
CABIN CR I/C TO W EASTON I/C PHASE 3
ADD LANES / WILDLIFE BRIDGES
SPARKS RD BRIDGE EB NO. 90/117S

TRAFFIC BARRIER - SHAPE F 42 IN.
DETAIL 3 OF 4

BRIDGE SHEET NO. BK27

SHEET 1616 OF 1783 SHEETS



PLAN
TRAFFIC BARRIER

TYPICAL AT END OF MODIFIED TRAFFIC BARIER END SECTION WHERE THRIE BEAM END SECTION "DESIGN F" STD. PLAN C-7a OR GUARDRAIL END SECTION "DESIGN D OR F" STD PLAN C-5 IS USED

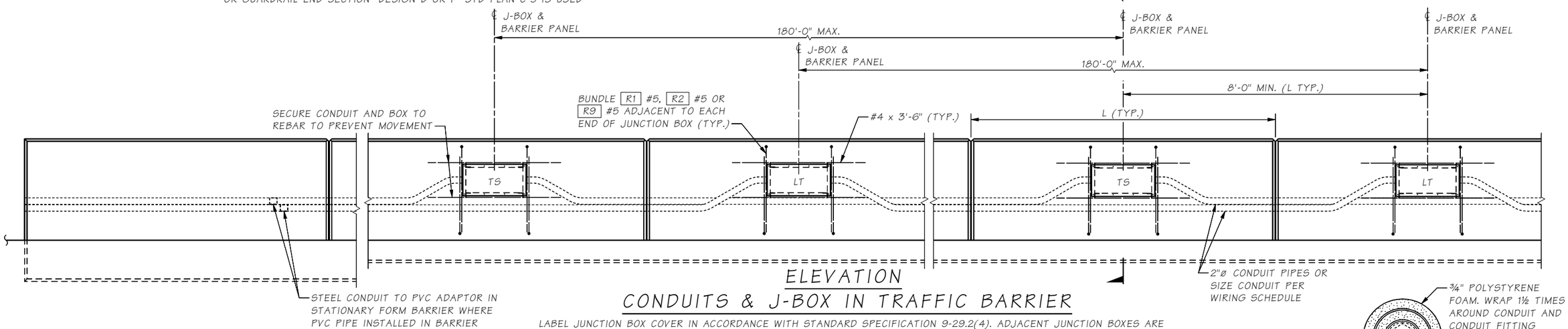
JUNCTION BOX LOCATIONS

STATION	OFFSET	"TS" OR "LT"
1931+00.86	LT	TS
1931+08.95	LT	LT
1930+59.92	RT	TS
1930+67.86	RT	LT
1931+79.72	LT	TS
1931+87.81	LT	LT

TS = TRAFFIC SYSTEM
LT = LIGHTING SYSTEM

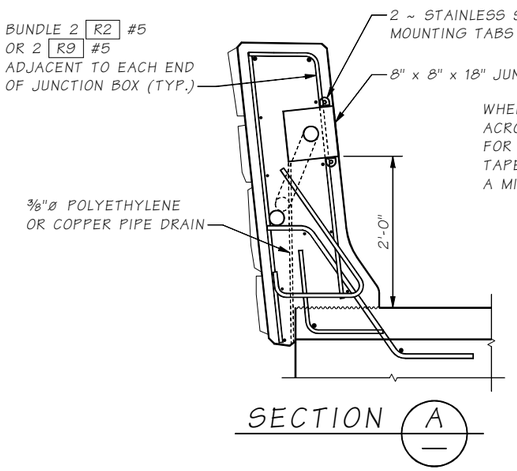
NOTES:

1. JUNCTION BOX LOCATIONS SHOWN ARE APPROXIMATE. CENTER JUNCTION BOX INSTALLATION BETWEEN BARRIER DUMMY JOINTS.
2. INSTALL ALL CONDUIT RUNS TO DRAIN TO A BRIDGE END OR PROVIDE DRAIN AT ALL LOW POINTS IN CONDUIT RUN ON BRIDGE.
3. NEMA 4X IN STATIONARY FORM BARRIER, OR NEMA 3R IN SLIP FORM BARRIER. MOUNT JUNCTION BOX SO COVER IS FLUSH WITH BARRIER, CAN BE RECESSED UP TO ⅛".

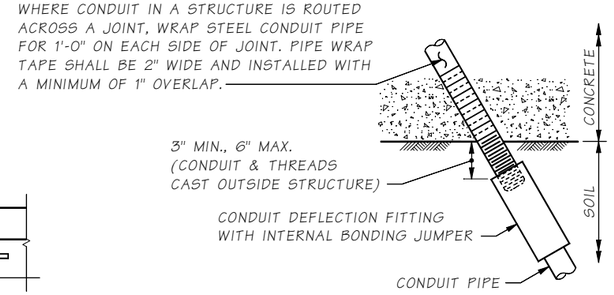


ELEVATION
CONDUITS & J-BOX IN TRAFFIC BARRIER

LABEL JUNCTION BOX COVER IN ACCORDANCE WITH STANDARD SPECIFICATION 9-29.2(4). ADJACENT JUNCTION BOXES ARE SHOWN CENTERED BETWEEN ADJACENT DUMMY JOINTS. IF THE DISTANCE BETWEEN ADJACENT DUMMY JOINTS IS 16'-0" OR GREATER, PLACE ADJACENT JUNCTION BOXES SYMMETRICALLY ON EITHER SIDE OF THE CENTER OF ONE DUMMY PANEL WHILE MAINTAINING 8'-0" MINIMUM BETWEEN CENTER LINES OF THE JUNCTION BOXES.

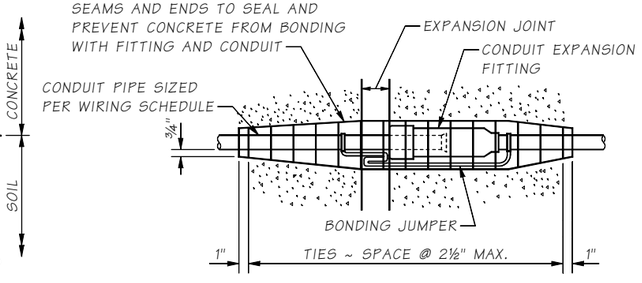


SECTION A



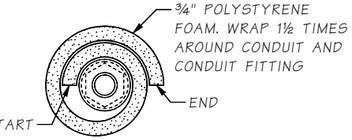
CONDUIT DEFLECTION FITTING A

CONDUIT FITTING - TYPE DX FOR DEFLECTION OF 30° AND ¾" MOVEMENT. PLACE AT CONDUIT PIPE EXIT FROM STRUCTURE.

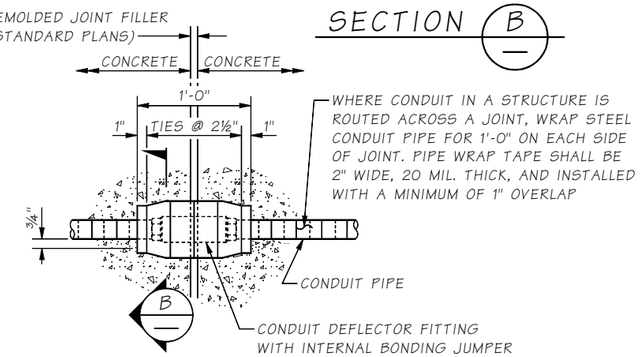


CONDUIT EXPANSION FITTING

CONDUIT FITTING - (TYPE AX FOR MOVEMENT OF ± 2") AT BRIDGE EXPANSION JOINTS



SECTION B



CONDUIT DEFLECTION FITTING B

CONDUIT FITTING - TYPE DX FOR DEFLECTION OF 30° AND ¾" MOVEMENT. CONDUIT PIPES PLACED THROUGH RETAINING WALL TRAFFIC BARRIER SHALL BE FITTED WITH DEFLECTION FITTINGS AT A MAXIMUM SPACING OF 120'. THE DEFLECTION FITTINGS SHALL BE PLACED AT THE TRAFFIC BARRIER OPEN JOINT THAT COINCIDES WITH THE RETAINING WALL EXPANSION JOINT.

SR 1-90 FILE NO. ____ SHEET BK28

Bridge Design Engr.	Khaleghi, B	M:\Z-Team\I-90 PHASE 3 SPARKS RD EB\window files\TRAFFIC BARRIER DET 3.wnd			REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor	Zeldenrust, RP				10	WASH.			
Designed By	Liu, S 01/21				JOB NUMBER 19Y007				
Checked By	Barkley, J 01/22								
Detailed By	Uhde, T 01/21				CONTRACT NO.				
Bridge Projects Engr.									
Prelim. Plan By									
Architect/Specialist		DATE	REVISION	BY	APP'D				

Mon Feb 07 11:55:41 2022

P.E. STAMP BOX
RICHARD P. ZELDENRUST — STATE OF WASHINGTON — 25470 — PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE

BRIDGE AND STRUCTURES OFFICE

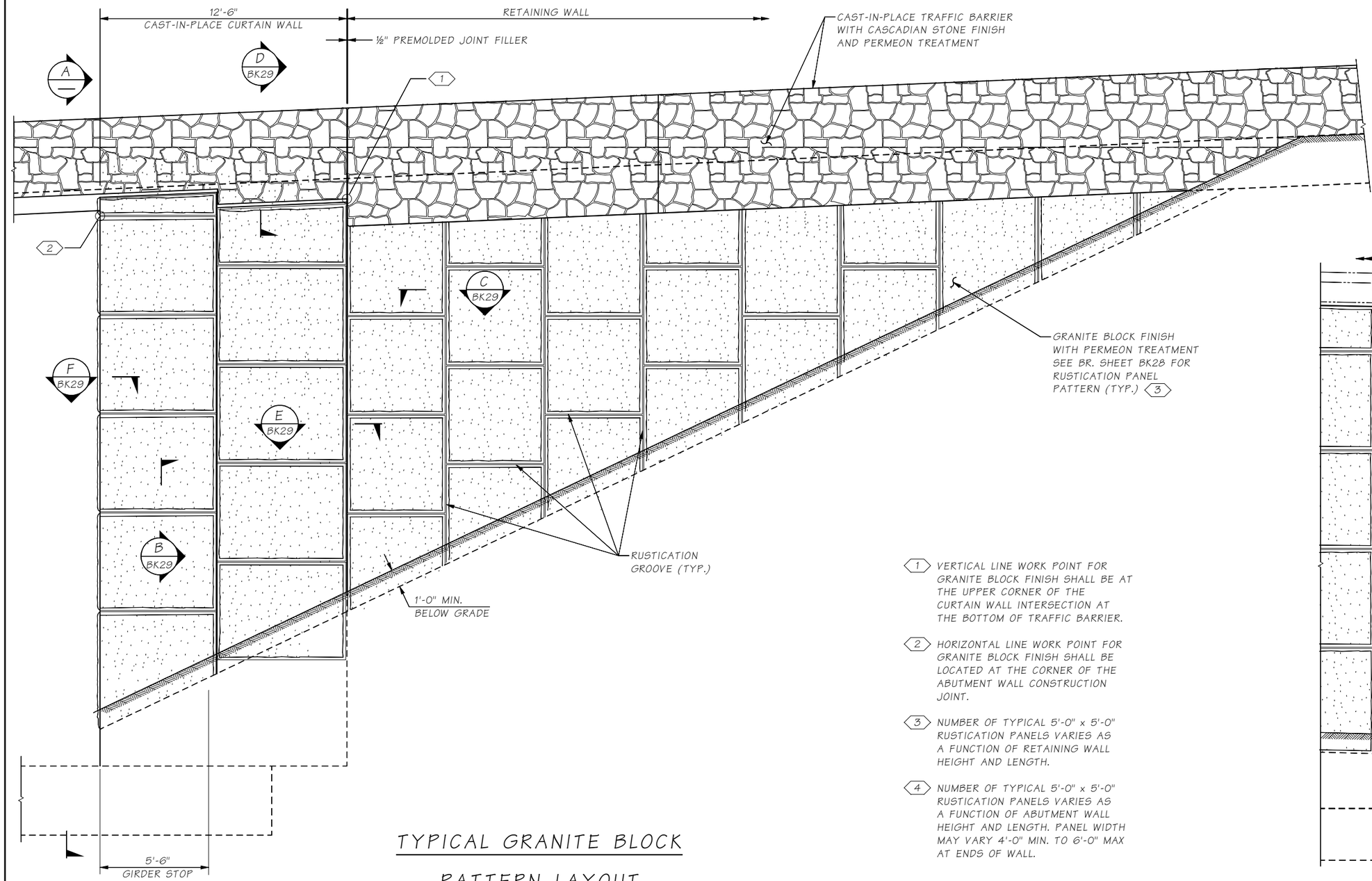
P.E. STAMP BOX
BIJAN KHALEGHI — STATE OF WASHINGTON — 27695 — STRUCTURAL ENGINEER — PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE

Washington State Department of Transportation

I-90
CABIN CR I/C TO W EASTON I/C PHASE 3
ADD LANES / WILDLIFE BRIDGES
SPARKS RD BRIDGE EB NO. 90/117S

TRAFFIC BARRIER - SHAPE F 42 IN.
DETAIL 4 OF 4

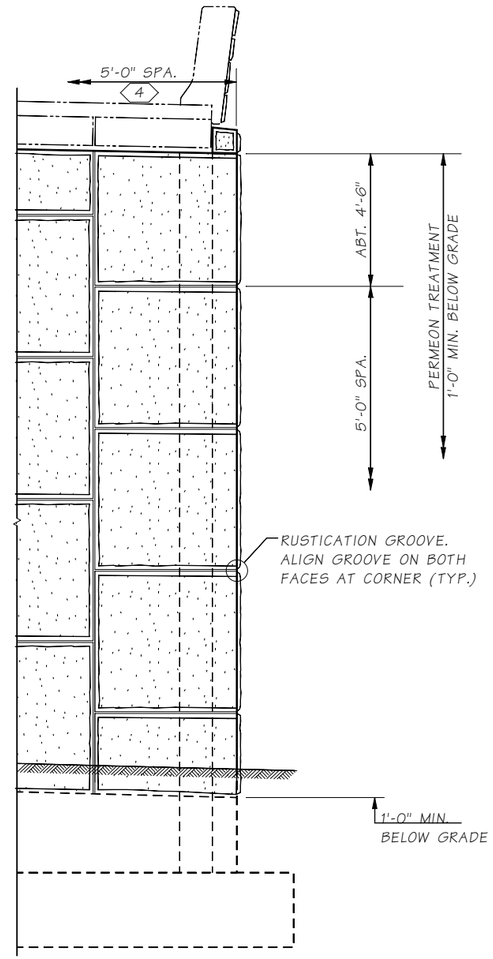
BRIDGE SHEET NO. BK28
SHEET 1617 OF 1783 SHEETS



TYPICAL GRANITE BLOCK PATTERN LAYOUT

SHOWING CAST-IN-PLACE ABUTMENT, CURTAIN WALL AND STRUCTUAL EARTH RETAINING WALL

1. VERTICAL LINE WORK POINT FOR GRANITE BLOCK FINISH SHALL BE AT THE UPPER CORNER OF THE CURTAIN WALL INTERSECTION AT THE BOTTOM OF TRAFFIC BARRIER.
2. HORIZONTAL LINE WORK POINT FOR GRANITE BLOCK FINISH SHALL BE LOCATED AT THE CORNER OF THE ABUTMENT WALL CONSTRUCTION JOINT.
3. NUMBER OF TYPICAL 5'-0" x 5'-0" RUSTICATION PANELS VARIES AS A FUNCTION OF RETAINING WALL HEIGHT AND LENGTH.
4. NUMBER OF TYPICAL 5'-0" x 5'-0" RUSTICATION PANELS VARIES AS A FUNCTION OF ABUTMENT WALL HEIGHT AND LENGTH. PANEL WIDTH MAY VARY 4'-0" MIN. TO 6'-0" MAX AT ENDS OF WALL.



VIEW A —

SR I-90 FILE NO. SHEET BK29

Bridge Design Engr.	Khaleghi, B	M:\Z-Team\I-90 PHASE 3 SPARKS RD EB\window files\ARCHITECT DETS 1.wnd				REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor	Zeldenrust, RP					10	WASH.			
Designed By	Rochon, MJ 01/22					JOB NUMBER 19Y007				
Checked By	Barkley, J 01/22					CONTRACT NO.				
Detailed By	Rochon, MJ 01/22									
Bridge Projects Engr.										
Prelim. Plan By										
Architect/Specialist		DATE	REVISION	BY	APP'D					

P.E. STAMP BOX — SEE SHEET CT9 — DATE

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX — MATTHEW J. ROCHON, STATE OF WASHINGTON, 40414, REGISTERED PROFESSIONAL ENGINEER — SEE SHEET CT9 — DATE

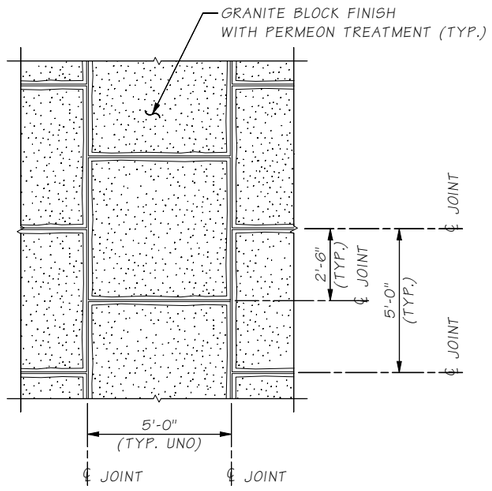
Washington State Department of Transportation

I-90
CABIN CR I/C TO W EASTON I/C PHASE 3
ADD LANES / WILDLIFE BRIDGES
SPARKS RD BRIDGE EB NO. 90/117S

ARCHITECTURAL DETAILS
1 OF 2

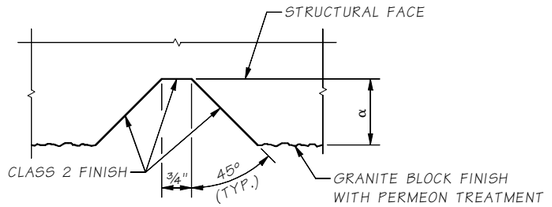
BRIDGE SHEET NO. BK29
SHEET 1618 OF 1783 SHEETS

Mon Feb 07 11:55:41 2022



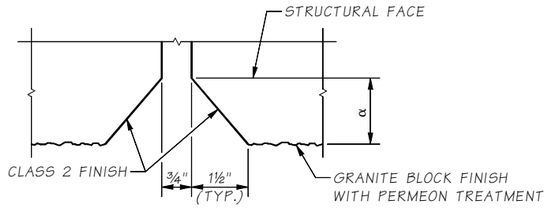
RUSTICATION PANEL PATTERN

TYPICAL FOR S.E.W. PRECAST PANELS.
CAST-IN-PLACE CURTAIN WALL SIMILAR.



SECTION B BK28

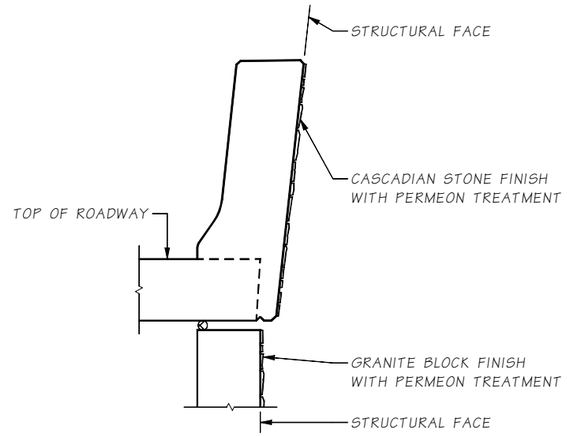
CAST-IN-PLACE RUSTICATION
GROOVE TYPICAL FOR VERTICAL
AND HORIZONTAL APPLICATIONS



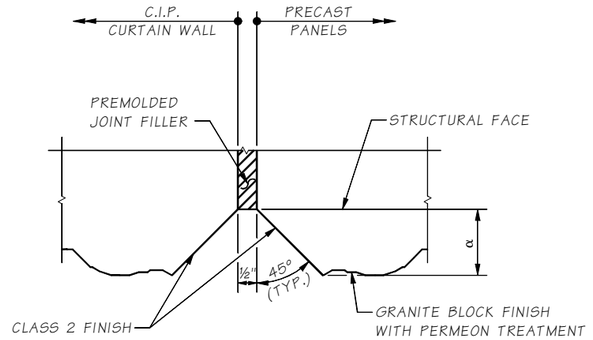
SECTION C BK28

PRECAST RUSTICATION GROOVE
TYPICAL FOR VERTICAL
AND HORIZONTAL APPLICATIONS

α CONCRETE SURFACE VARIES
IN DEPTH DEPENDING ON
FORMLINER MANUFACTURERS
AMPLITUDE ± APPROXIMATELY 1¾"

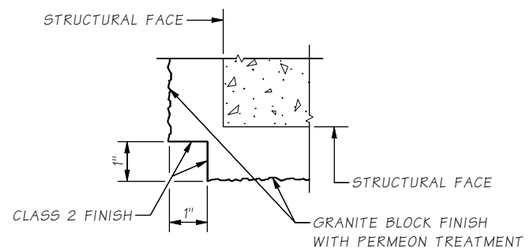


SECTION D BK28



SECTION E BK28

CAST-IN-PLACE & PRECAST
CORNER GROOVE



SECTION F BK28

CAST-IN-PLACE
CORNER GROOVE

SR I-90 FILE NO. SHEET BK30

Bridge Design Engr.	Khaleghi, B		M:\Z-Team\I-90 PHASE 3 SPARKS RD EB\window files\ARCHITECT DETS 2.wnd			REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor	Zeldenrust, RP					10	WASH.			
Designed By	Rochon, MJ	01/22				JOB NUMBER 19Y007				
Checked By	Barkley, J	01/22								
Detailed By	Rochon, MJ	01/22				CONTRACT NO.				
Bridge Projects Engr.										
Prelim. Plan By										
Architect/Specialist			DATE	REVISION	BY	APP'D				

P.E. STAMP BOX
SEE SHEET CT9
DATE

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX
MATTHEW J. ROCHON
STATE OF WASHINGTON
60414
REGISTERED
PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE

Washington State
Department of Transportation

I-90
CABIN CR I/C TO W EASTON I/C PHASE 3
ADD LANES / WILDLIFE BRIDGES
SPARKS RD BRIDGE EB NO. 90/117S

ARCHITECTURAL DETAILS
2 OF 2

BRIDGE SHEET NO. BK30
SHEET 1619 OF 1783 SHEETS

Mon Feb 07 11:55:41 2022

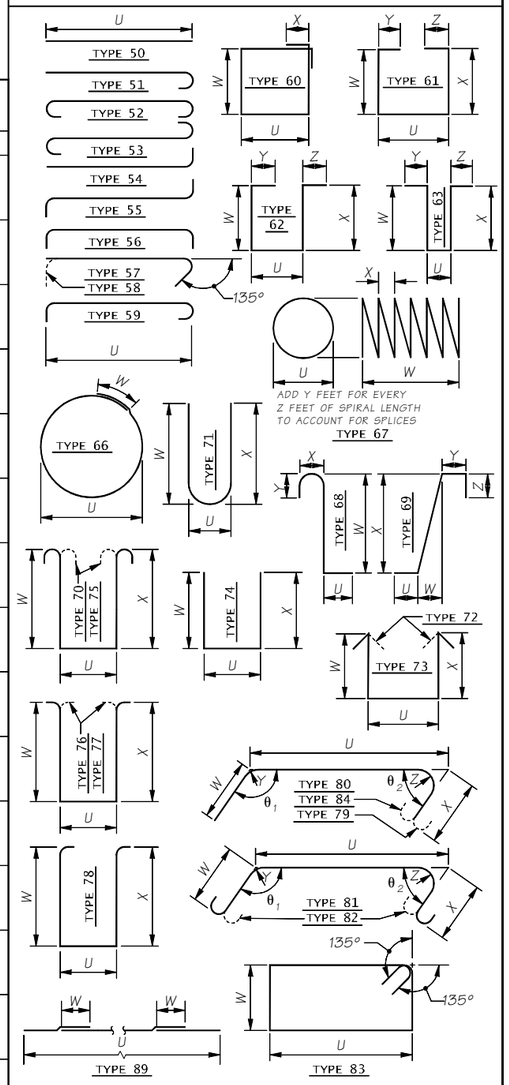
S = Bar is included in substructure quantities.
L = Lump sum quantity.
T = Transverse or S = Seismic
E = Bar is to be epoxy coated.
V = Bar dimensions vary between dimensions shown on this line and the following line.

MARK NO.	LOCATION	SIZE	NO REQ'D	BEND TYPE	TIE OR STIR.	LUMP SUM	SUBSTR.	EPOXY COAT	VARIES	NO. EACH	DIMENSIONS (Out to Out) U Ft.	U In.	W Ft.	W In.	X Ft.	X In.	Y Ft.	Y In.	Z Ft.	Z In.	θ_1 Deg.	θ_2 Deg.	LENGTH Ft.	LENGTH In.	WEIGHT Lbs.
	PIER 1 SPREAD FOOTING																								
101	Top Mat Transverse	7	64	50		S					17	6.0											17	6	2289
102	Bottom Mat Transverse	10	126	50		S					17	6.0											17	6	9488
103	Top Mat Longitudianal	6	19	89		S					62	6.0	3	2.0									65	8	1874
104	Bottom Mat Longitudinal	6	19	89		S					62	6.0	3	2.0									65	8	1874
105	Stirrup	4	384	58	T	S					3	0.0											3	8	939
	ABUTMENT WALL PIER 1																								
106	Abut. Wall Horiz. GR1	6	53	89		S					62	1.0	3	2.0									65	3	5194
106	Abut. Wall Horiz. GR2	6	8	89		S			V	2	49	5.0	3	2.0									49	5	366
											11	6.0	3	2.0									11	6	
107	Abut. Wall Vert. N.F.	6	61	54		S			V	1	31	1.0											31	11	2723
											26	8.0											27	6	
108	Abut. Wall Vert. F.F.	10	121	54		S			V	1	31	1.0											32	7	15809
											26	8.0											28	2	
109	Top Face Ties	5	61	56	T	S					2	8.0											3	5	216
111	Abutment Wall Ties	4	200	58	T	S					2	9.0											3	5	455
112	Abut Wall To Curt Wall FF	6	29	54		S					6	0.0											6	10	298
113	Abut Wall End Face	6	25	56		S					2	8.0											4	4	163
	S.W. CURTAIN WALL																								
01	Underdrain Blockout	4	4	50		S					2	9.0											2	9	7
115	F.F. Dowels	8	10	54		S					7	6.0											8	7	230
116	F.F. Vertical	8	13	50		S			V	1	28	5.0											28	5	1022
											30	6.0											30	6	
117	N.F. Dowels	5	13	54		S					5	6.0											6	2	84
118	N.F. Verticals	5	16	50		S			V	1	28	5.0											28	5	492
											30	6.0											30	6	
119	F.F. Horizontals	8	59	54		S					12	2.0											13	3	2094
120	N.F. Horizontals	5	29	50		S					12	2.0											12	2	368
121	Stirrup	5	29	76		S					5	2.0	2	2.0	2	2.0							10	8	322
122	Top Horizontal	5	4	50		S					6	8.0											6	8	28
	GIRDER STOPS PIER 1																								
123	Right Side Stirrups	5	11	74							0	8.0	3	2.0	3	2.0							6	9	77
124	Right Side Longt.	4	6	56							5	2.0											6	3	25
125	Left Side Stirrups	5	5	74							2	8.0	3	4.0	3	4.0							9	1	47
126	Right Side Longt.	4	7	50							2	3.0											2	3	11
	PIER 2 SPREAD FOOTING																								
201	Top Mat Transverse	7	64	50		S					17	6.0											17	6	2289
202	Bottom Mat Transverse	10	126	50		S					17	6.0											17	6	9488
203	Top Mat Longitudinal	6	19	89		S					62	6.0	3	2.0									65	8	1874
204	Bottom Mat Longitudinal	6	19	89		S					62	6.0	3	2.0									65	8	1874
205	Stirrup	4	384	52		S					3	0.0											3	12	1026
	ABUTMENT WALL PIER 2																								
206	Abut. Wall Horiz. GR1	6	53	89		S					61	1.0	3	2.0									64	3	5115
206	Abut. Wall Horiz. GR2	6	8	89		S			V	2	49	7.0	3	2.0									49	7	360
											10	5.0	3	2.0									10	5	
207	Abut. Wall Vert. N.F.	6	61	54		S			V	1	29	0.0											29	10	2517
											24	3.0											25	1	
208	Abut. Wall Vert. F.F.	10	121	54		S			V	1	29	0.0											30	6	14638
											24	3.0											25	9	
209	Top Face Ties	5	61	56	T	S					2	8.0											3	5	216
211	Abutment Wall Ties	4	200	58	T	S					2	9.0											3	5	455
212	Abut Wall to Curt Wall FF	6	27	54	T	S					6	0.0											6	10	278
213	Abut Wall End Face	6	22	56	T	S					2	8.0											4	4	144
	S.E. CURTAIN WALL																								
02	Underdrain Blockout	4	4	50		S					2	9.0											2	9	7
215	F.F. Dowels	8	10	54		S					7	6.0											8	7	230
216	F.F. Vertical	8	13	50		S			V	1	27	6.0											27	6	931
											26	2.0											26	2	
217	N.F. Dowels	5	13	54		S					5	6.0											6	2	84
218	N.F. Verticals	5	16	50		S			V	1	27	2.0											27	2	462
											28	2.0											28	2	
219	F.F. Horizontals	8	59	54		S					12	2.0											13	3	2094
220	N.F. Horizontals	5	29	50		S					12	2.0											12	2	368
221	Stirrup	5	29	76		S					5	2.0	2	2.0	2	2.0							10	8	322
222	Top Horizontal	5	4	50		S					6	8.0											6	8	28
	GIRDER STOPS PIER 2																								
223	Right Side Stirrups	5	11	74							0	8.0	3	2.0	3	2.0							6	9	77
224	Right Side Longt.	4	6	56							5	2.0											6	3	25
225	Left Side Stirrups	5	5	74							2	8.0	3	4.0	3	4.0							9	1	47
226	Right Side Longt.	4	7	50							2	3.0											2	3	11
	END DIAPHRAGM PIERS 1 & 2																								
301	Stirrup	4	236	58	T						3	0.0											3	8	577
302	Stirrup	4	118	61	T						1	9.0	2	0.0	0	0.0	0	5.0	0	0.0			3	12	315
303	Top Ties	4	118	58	T						1	9.0											2	5	190
304	Top and Middle Logitudinal	4	14	89				E			58	0.0	2	0.0									60	0	561
306	Deck longitudinal	6	4	89							58	0.0	3	0.0									58	0	348
307	Bot. Longitudinal	6	4	89							58	0.0	2	2.0									58	0	348
	BRIDGE DECK																								
401	Longitudinal	4	65	89				E	V	1	59	6.0	2	0.0									61	6	2670
											59	6.0	2	0.0									61	6	
403	Transverse	5	119	50	T			E			58	6.0											58	6	7261

STEEL REINFORCING BAR QUANTITIES NOT INCLUDED IN THIS BAR LIST

TRAFFIC BARRIER
BRIDGE GRATE INLETS
RETAINING WALL

BENDING DIAGRAMS



NOTES:

1. ALL REINFORCING BARS ON THIS SHEET SHALL BE ASTM A 706 UNLESS SHOWN OTHERWISE.
2. REINFORCING FOR TRAFFIC BARRIERS NOT SHOWN IN THE BAR LIST, SEE TRAFFIC BARRIER SHEET.
3. BEND FOR TRANSVERSE BARS DUE TO ROADWAY CROWN CONDITIONS HAS NOT BEEN SHOWN. THESE BARS SHALL BE BENT AS REQUIRED TO CONFORM TO THE CONFIGURATION OF THE STRUCTURE.
4. NUMBER AND LENGTH OF BARS TO BE DETERMINED BY THE CONTRACTOR FROM PLANS.

SR I-90 FILE NO. SHEET BK31

Bridge Design Engr.	Khaleghi, B	M:\Z-Team\I-90 PHASE 3 SPARKS RD EB\window files\BARLIST.wnd	
Supervisor	Zeldenrust, RP		
Designed By	Liu, S 10/21		
Checked By	Barkley, J 01/22		
Detailed By	Uhde, T 10/21		
Bridge Projects Engr.			
Prelim. Plan By			
Architect/Specialist			

DATE	REVISION	BY	APP'D

REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
10	WASH.			

JOB NUMBER 19Y007
CONTRACT NO.

P.E. STAMP BOX — SEE SHEET CT9 — DATE

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX — SEE SHEET CT9 — DATE

Washington State Department of Transportation

I-90
CABIN CR I/C TO W EASTON I/C PHASE 3 ADD LANES / WILDLIFE BRIDGES
SPARKS RD BRIDGE EB NO. 90/117S

BARLIST

BRIDGE SHEET NO. BK31
SHEET 1620 OF 1783 SHEETS

Mon Feb 07 11:55:42 2022

INDEX

SHEET NO.	PLAN REFERENCE NO.	TITLE
		SPARKS ROAD BRIDGE WB
1621	INB12	INDEX BRIDGE
1622	BL1	LAYOUT
1623	BL2	GENERAL NOTES
1624	BL3	CONSTRUCTION SEQUENCE
1625	BL4	FOUNDATION LAYOUT
1626	BL5	PEIR 1 PLAN
1627	BL6	PIER 1 ELEVATION
1628	BL7	PIER 1 DETAILS
1629	BL8	PIER 2 PLAN
1630	BL9	PIER 2 ELEVATION
1631	BL10	PIER 2 DETAILS
1632	BL11	NW CURTAIN WALL DETAILS
1633	BL12	NE CURTAIN WALL DETAILS
1634	BL13	GIRDER STOP DETAILS
1635	BL14	FRAMING PLAN
1636	BL15	TYPICAL SECTION
1637 - 1639	BL16 - BL18	SLAB GIRDER DETAILS
1640	BL19	SLAB GIRDER END DIAPHRAGM
1641	BL20	BRIDGE DECK REINFORCEMENT PLAN
1642	BL21	BRIDGE DECK REINFORCEMENT SECTION
1643 - 1645	BL22 - BL24	APPROACH SLAB DETAILS

INDEX (CONTINUED)

SHEET NO.	PLAN REFERENCE NO.	TITLE
1646 - 1649	BL25 - BL28	TRAFFIC BARRIER - SHAPE F 42 IN. DETAILS
1650 - 1651	BL29 - BL30	ARCHITECTURE DETAILS
1652	BL31	BARLIST

PLAN REF NO
¢¢###
SHEET ## OF ## SHEETS

NOTE: ALL SHEET REFERENCES, FIRST NOS. OF STRUCTURE CODE DESIGNATIONS AND MATCH LINE SHEET REFERENCES, ETC., THROUGHOUT THE PLANS, REFER TO THE ENTRY IN THE PLAN

FILE NAME	K:\452201\090\06736_Phase 3\Design_CAD_Sheets\010-Index\XL5479_PS_INB.dgn				REGION NO.	STATE	FED.AID PROJ.NO.
TIME	7:04:48 AM				10	WASH	
DATE	2/16/2022				JOB NUMBER		
PLOTTED BY	kingk				197007		
DESIGNED BY	KING/SCHILPEROORT				CONTRACT NO.		LOCATION NO.
ENTERED BY	K. KING						
CHECKED BY	K. KING						
PROJ. ENGR.	A. BYRD						
REGIONAL ADM.	T. TREPANIER	REVISION	DATE	BY			

DATE
P.E. STAMP BOX

DATE
P.E. STAMP BOX

Washington State Department of Transportation

I-90
CABIN CREEK I/C TO W EASTON I/C
PHASE 3 - ADD LANES/WILDLIFE BRIDGES

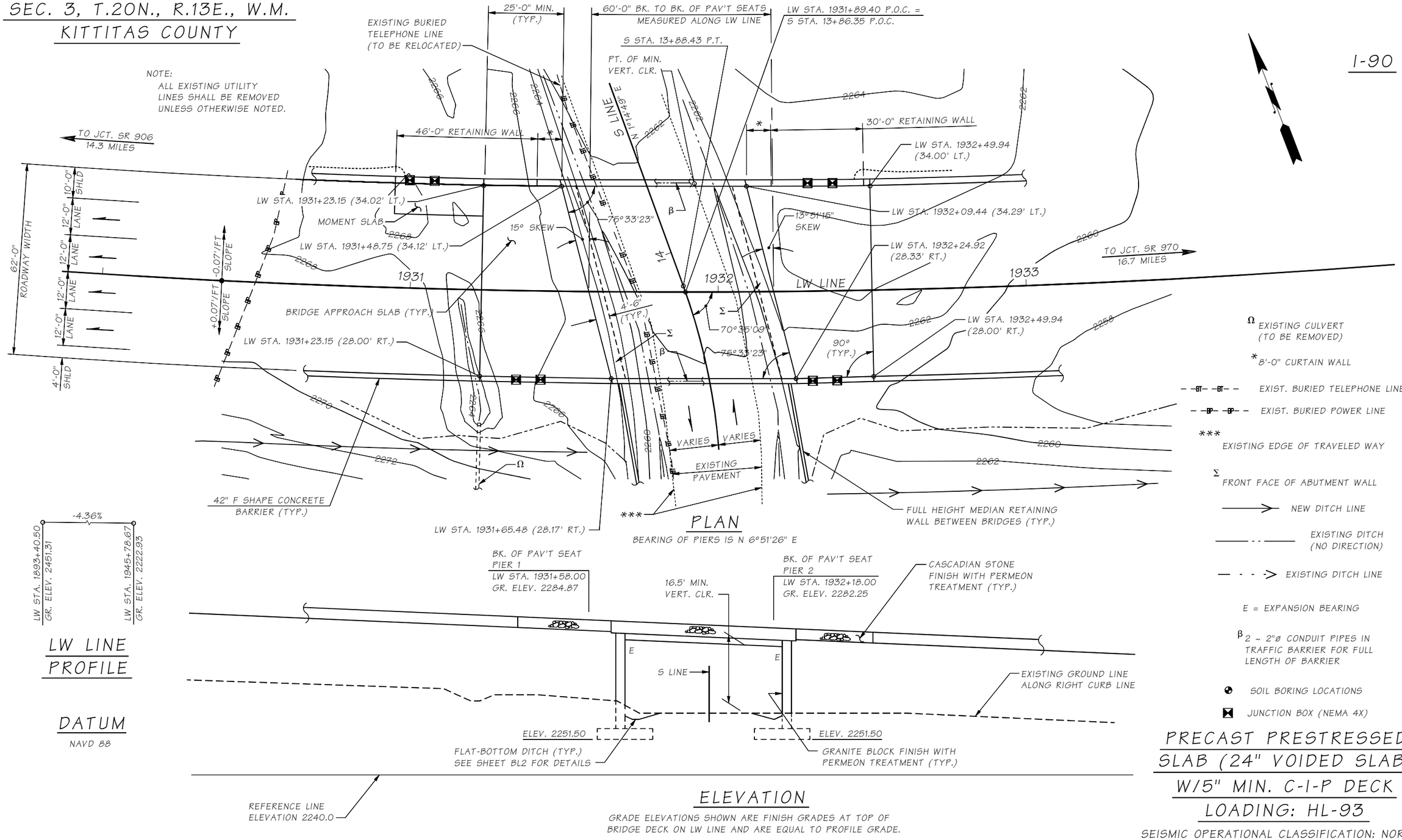
INDEX BRIDGE

Plot 13

PLAN REF NO
INB12

SHEET 1621 OF 1783 SHEETS

SEC. 3, T.20N., R.13E., W.M.
KITTITAS COUNTY



LW LINE PROFILE

DATUM
NAVD 88

ELEVATION

GRADE ELEVATIONS SHOWN ARE FINISH GRADES AT TOP OF BRIDGE DECK ON LW LINE AND ARE EQUAL TO PROFILE GRADE.

PRECAST PRESTRESSED SLAB (24" VOIDED SLAB) W/5" MIN. C-I-P DECK

LOADING: HL-93

SEISMIC OPERATIONAL CLASSIFICATION: NORMAL

SR I-90 FILE NO. SHEET BL1

Bridge Design Engr.	Khaleghi, B	M:\Z-Team\I-90 PHASE 3 SPARKS RD WB\window files\LAYOUT.wnd				REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor	Zeldenrust, RP					10	WASH.			
Designed By	Liu, S 06/20					JOB NUMBER 19Y007				
Checked By	Barkley, J 01/22					CONTRACT NO.				
Detailed By	Uhde, T 06/20									
Bridge Projects Engr.										
Prelim. Plan By										
Architect/Specialist		DATE	REVISION	BY	APP'D					

P.E. STAMP BOX
SEE SHEET CT9
DATE:

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX
BIJAN KHALEGHI
STATE OF WASHINGTON
07695
STRUCTURAL ENGINEER
PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE

Washington State Department of Transportation

I-90
CABIN CR I/C TO W EASTON I/C PHASE 3
ADD LANES / WILDLIFE BRIDGES
SPARKS RD BRIDGE WB NO. 90/117N

LAYOUT

BRIDGE SHEET NO. BL1
SHEET 1622 OF 1783 SHEETS

Mon Feb 07 12:12:26 2022

CURVE DATA					
P.I. STATION	Δ	RADIUS	TANGENT	LENGTH	BK. TANGENT BRG.
LW 1929+57.94	36°01'30" LT.	3000.00'	975.48'	1886.26'	S 45°41'30" E
S 13+57.61	17°48'13" LT.	200.00'	31.33'	62.15'	N 19°03'02" E

GENERAL NOTES

1. ALL MATERIAL AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION DATED 2022.

2. THIS STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH THE REQUIREMENTS OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS 9TH EDITION 2020. DEAD LOAD INCLUDES ADDITIONAL FUTURE WEARING SURFACE OF 35 POUNDS PER SQUARE FOOT.

3. THE SEISMIC DESIGN OF THIS STRUCTURE HAS BEEN COMPLETED IN ACCORDANCE WITH THE REQUIREMENTS OF THE AASHTO GUIDE SPECIFICATIONS FOR LRFD SEISMIC BRIDGE DESIGN 2ND EDITION 2011, USING SEISMIC DESIGN CATEGORY A, SITE CLASS C, A PEAK GROUND ACCELERATION OF 0.23, AND 0.2 SECOND AND 1.0 SECOND SPECTRAL ACCELERATION OF 0.52 AND 0.15, RESPECTIVELY, ON SITE CLASS B.

4. THE CONCRETE IN BRIDGE DECKS SHALL BE CLASS 4000D. THE CONCRETE IN BRIDGE APPROACH SLABS SHALL BE CLASS 4000A. ALL OTHER CAST-IN-PLACE CONCRETE SHALL BE CLASS 4000.

5. THE BACKFILL BEHIND THE ABUTMENTS MAY BE PLACED PRIOR TO PLACEMENT OF THE SUPERSTRUCTURE, IN ACCORDANCE WITH SECTION 2-09.3(1)E.

6. UNLESS OTHERWISE SHOWN IN THE PLANS, CONCRETE COVER MEASURED FROM THE FACE OF CONCRETE TO THE FACE OF ANY REINFORCING STEEL SHALL BE 2½" AT THE TOP OF THE BRIDGE DECK, 3" AT THE BOTTOM OF FOOTING, AND 2" AT ALL OTHER LOCATIONS.

7. FALSEWORK SHALL BE CAREFULLY RELEASED TO PREVENT IMPACT OR UNDUE STRESS IN THE STRUCTURE.

8. CONDUITS, JUNCTION BOXES, AND UTILITIES ARE SHOWN FOR REFERENCE ONLY. THE CONTRACTOR SHALL COORDINATE THESE PLANS WITH THE ELECTRICAL, I.T.S. AND OTHER CIVIL PLANS.

9. NOMINAL BEARING RESISTANCE OF SPREAD FOOTING SHALL BE TAKEN AS FOLLOWS:

PIER NO.	SERVICE LIMIT STATE	STRENGTH LIMIT STATE	EXTREME 1 LIMIT STATE
1	16 KSF	44.4 KSF	22.2 KSF
2	16 KSF	44.4 KSF	22.2 KSF

10. THE 42 IN. TRAFFIC BARRIER HAS BEEN DESIGNED IN ACCORDANCE WITH AASHTO LRFD DESIGN SPECIFICATION TEST LEVEL 5.

11. SNOW ACCUMULATION ON COMPLETED BRIDGE DECKS CLOSED TO TRAFFIC SHALL NOT EXCEED 4'-0" DEPTH. ANY SNOW REMOVAL EQUIPMENT SHALL NOT EXCEED LEGAL LOAD LIMITS.

SR I-90 FILE NO. _____ SHEET BL2

Bridge Design Engr.	Khaleghi, B	M:\Z-Team\I-90 PHASE 3 SPARKS RD WB\window files\GENERAL NOTES.wnd									
Supervisor	Zeldenrust, RP										
Designed By	Liu, S 06/20										
Checked By	Barkley, J 01/22										
Detailed By	Uhde, T 06/20										
Bridge Projects Engr.											
Prelim. Plan By											
Architect/Specialist		DATE	REVISION	BY	APP'D						

REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
10	WASH.			
JOB NUMBER 19Y007				
CONTRACT NO.				

P.E. STAMP BOX
RICHARD P. ZELDENRUST — STATE OF WASHINGTON — 28470 — PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE

BRIDGE AND STRUCTURES OFFICE

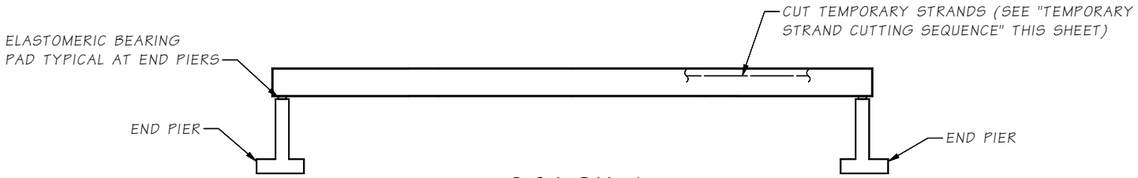
P.E. STAMP BOX
BIJAN KHALEGHI — STATE OF WASHINGTON — 27090 — PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE

Washington State Department of Transportation

I-90
CABIN CR I/C TO W EASTON I/C PHASE 3
ADD LANES / WILDLIFE BRIDGES
SPARKS RD BRIDGE WB NO. 90/117N
GENERAL NOTES

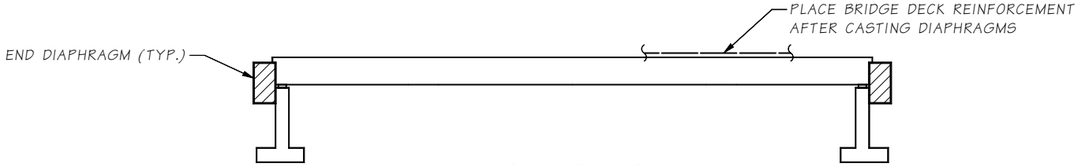
BRIDGE SHEET NO. BL2
SHEET 1623 OF 1783 SHEETS

Mon Feb 07 12:12:27 2022



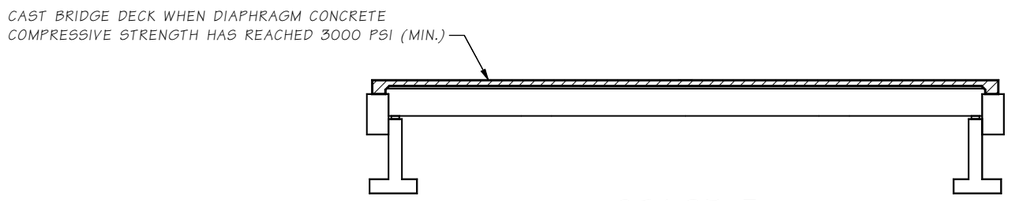
STAGE 1
SET GIRDERS IN PLACE

INSTALL TEMPORARY BRACING FOR ERECTION IN ACCORDANCE WITH SECTION 6-02.3(17)F4.

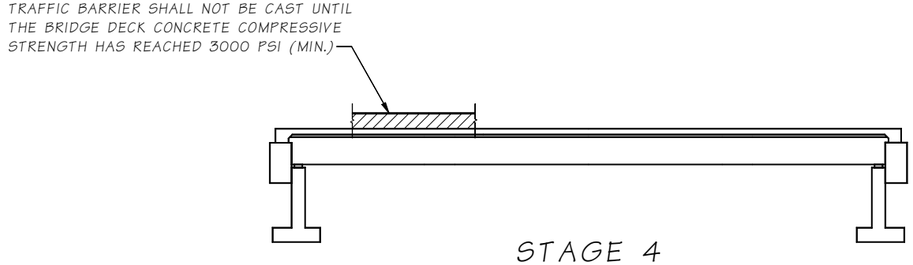


STAGE 2
CAST DIAPHRAGMS AND PLACE BRIDGE DECK REINFORCEMENT

INSTALL TEMPORARY BRACING FOR DIAPHRAGM AND DECK PLACEMENT IN ACCORDANCE WITH SECTION 6-02.3(17)F5.



STAGE 3
CAST BRIDGE DECK



STAGE 4
CAST TRAFFIC BARRIERS

TEMPORARY STRAND CUTTING SEQUENCE

1. ERECT AND BRACE GIRDERS.
2. REMOVE EXPANDED POLYSTYRENE IN 2" x 6" RECESSES IN TOP FLANGE OF GIRDERS.
3. CUT STRANDS IN 2" x 6" RECESSES. STRANDS MAY BE CUT BY USING A CUTTING TORCH AND MOVING THE FLAME BACK AND FORTH OVER THE LENGTH OF EXPOSED STRAND TO LET INDIVIDUAL WIRES BREAK ONE AT A TIME TO LESSEN THE SHOCK TO THE GIRDER. STRANDS SHALL BE RELEASED IN A SYMMETRICAL MANNER AROUND THE GIRDER CENTERLINE STARTING WITH THOSE NEAREST THE CENTERLINE AND WORKING OUTWARDS.
4. REMOVE ALL MOISTURE IN RECESS PRIOR TO FILLING RECESS WITH GROUT.

CONSTRUCTION SEQUENCE ~ SUPERSTRUCTURE

SR I-90 FILE NO. SHEET BL3

Bridge Design Engr.	Khaleghi, B	M:\Z-Team\I-90 PHASE 3 SPARKS RD WB\window files\CONSTRUCTION SEQUENCE.wnd				REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor	Zeldenrust, RP					10	WASH.			
Designed By	Liu, S 06/20					JOB NUMBER 19Y007				
Checked By	Barkley, J 01/22					CONTRACT NO.				
Detailed By	Uhde, T 06/20									
Bridge Projects Engr.										
Prelim. Plan By										
Architect/Specialist		DATE	REVISION	BY	APP'D					

P.E. STAMP BOX: RICHARD P. ZELDENRUST, STATE OF WASHINGTON, 25420, PROFESSIONAL ENGINEER — SEE SHEET CT9 — DATE

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX: BIJAN KHALEGHI, STATE OF WASHINGTON, 37695, PROFESSIONAL ENGINEER — SEE SHEET CT9 — DATE

Washington State Department of Transportation

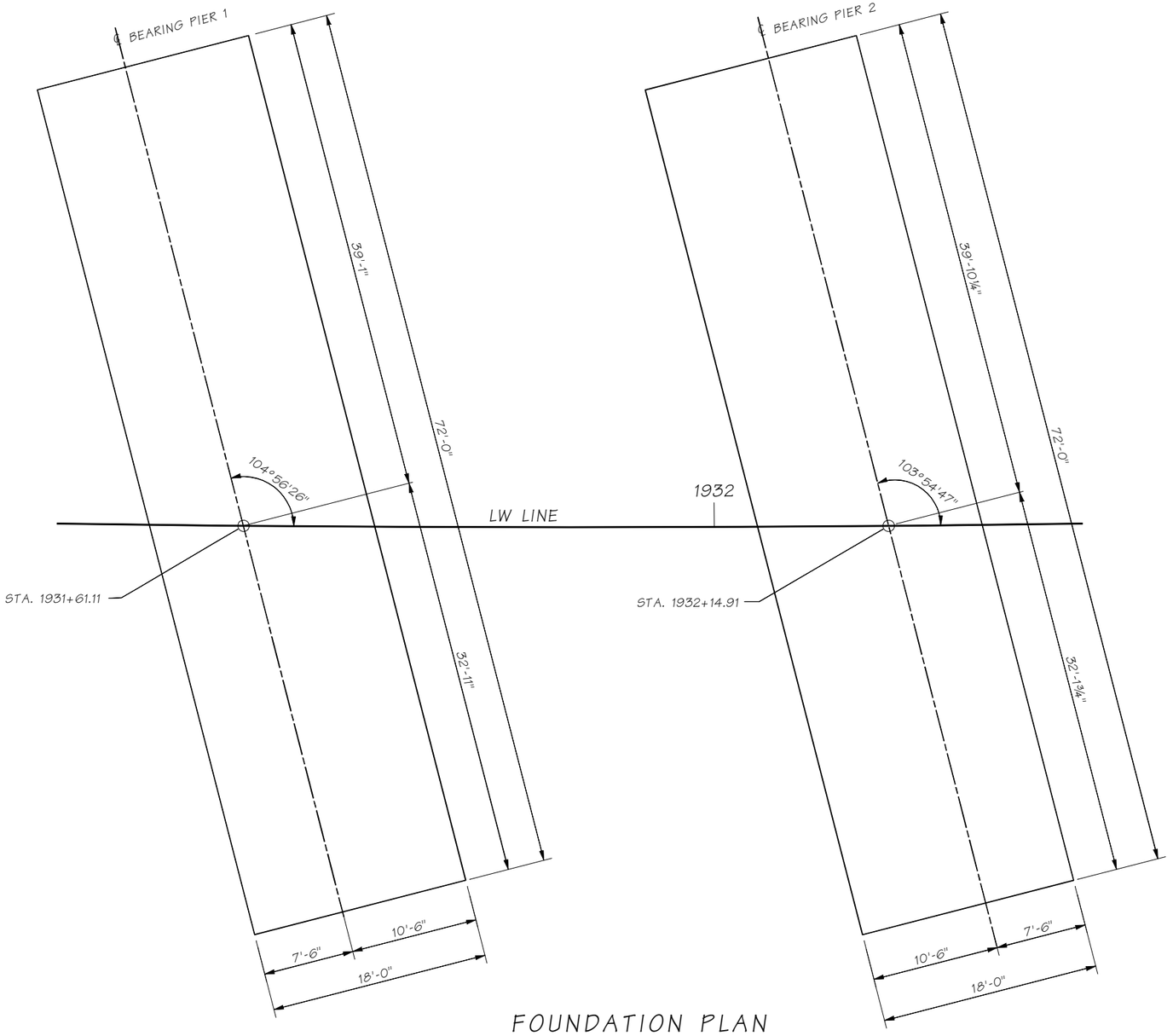
I-90
CABIN CR I/C TO W EASTON I/C PHASE 3
ADD LANES / WILDLIFE BRIDGES
SPARKS RD BRIDGE WB NO. 90/117N

CONSTRUCTION SEQUENCE

BRIDGE SHEET NO. BL3

SHEET 1624 OF 1783 SHEETS

Mon Feb 07 12:12:27 2022



FOUNDATION PLAN

BEARING OF PIERS IS N 6°51'26" E

SR I-90 FILE NO. ____ SHEET BL4

Bridge Design Engr.	Khaleghi, B		M:\Z-Team\I-90 PHASE 3 SPARKS RD WB\window files\FOUNDATION PLAN.wnd				REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor	Zeldenrust, RP						10	WASH.			
Designed By	Liu, S	06/20					JOB NUMBER 19Y007				
Checked By	Barkley, J	01/22					CONTRACT NO.				
Detailed By	Uhde, T	06/20									
Bridge Projects Engr.											
Prelim. Plan By											
Architect/Specialist			DATE	REVISION	BY	APP'D					

P.E. STAMP BOX
RICHARD P. ZELDENRUST — STATE OF WASHINGTON — 28410 — PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX
BIJAN KHALEGHI — STATE OF WASHINGTON — 37695 — PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE

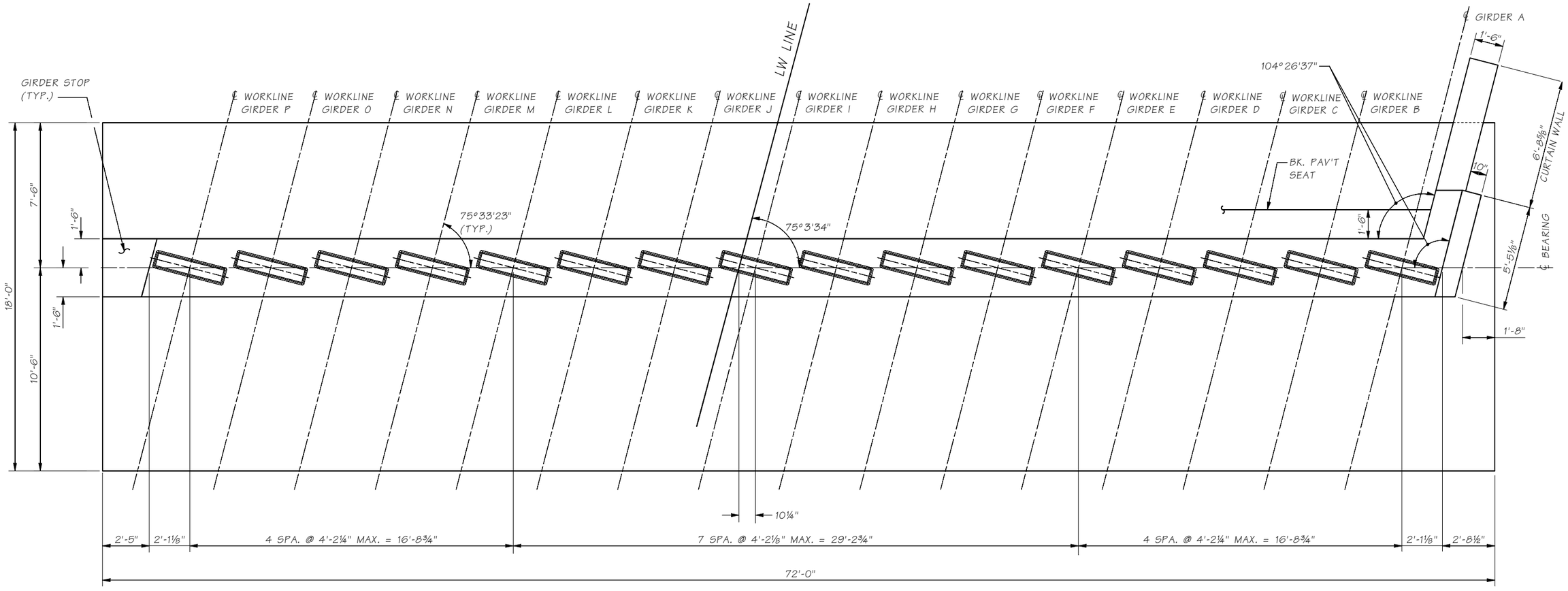
Washington State Department of Transportation

I-90
CABIN CR I/C TO W EASTON I/C PHASE 3
ADD LANES / WILDLIFE BRIDGES
SPARKS RD BRIDGE WB NO. 90/117N

FOUNDATION LAYOUT

BRIDGE SHEET NO. BL4
SHEET 1625 OF 1783 SHEETS

Mon Feb 07 12:12:27 2022



PIER 1 ~ PLAN

SR I-90 FILE NO. ____ SHEET BL5

Bridge Design Engr.	Khaleghi, B	M:\Z-Team\I-90 PHASE 3 SPARKS RD WB\window files\PIER 1 PLAN & ELEVATION.wnd				REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor	Zeldenrust, RP					10	WASH.			
Designed By	Liu, S 06/20					JOB NUMBER 19Y007				
Checked By	Barkley, J 01/22					CONTRACT NO.				
Detailed By	Uhde, T 06/20									
Bridge Projects Engr.										
Prelim. Plan By										
Architect/Specialist		DATE	REVISION	BY	APP'D					

P.E. STAMP BOX
RICHARD P. ZELDENRUST — STATE OF WASHINGTON — 25078 — STRUCTURAL ENGINEER — PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX
BIJAN KHALEGHI — STATE OF WASHINGTON — 27965 — STRUCTURAL ENGINEER — PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE

Washington State Department of Transportation

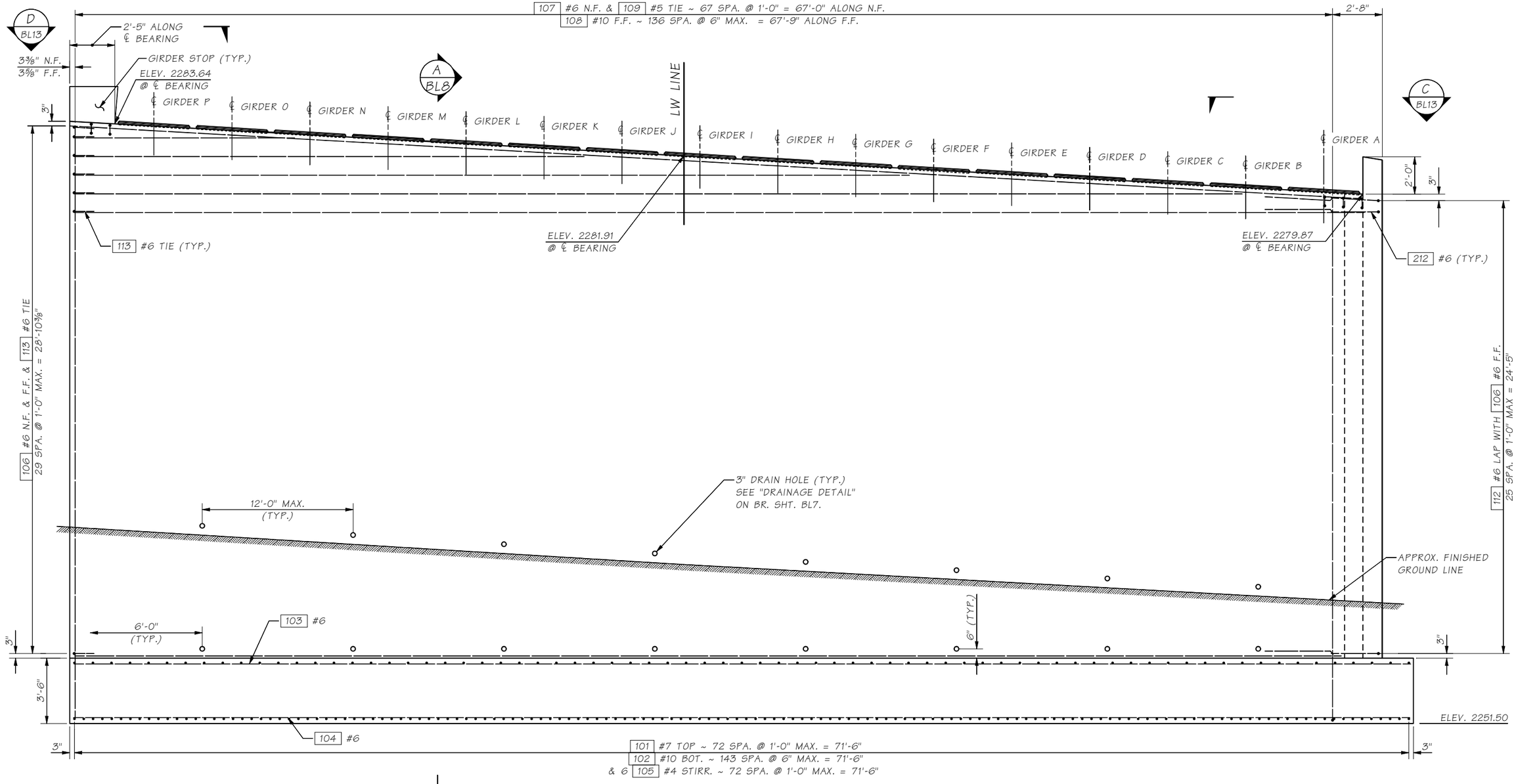
I-90
CABIN CR I/C TO W EASTON I/C PHASE 3
ADD LANES / WILDLIFE BRIDGES
SPARKS RD BRIDGE WB NO. 90/117N

PIER 1
PLAN

BRIDGE SHEET NO. BL5

SHEET 1626 OF 1783 SHEETS

Mon Feb 07 12:12:27 2022



ELEVATION ~ PIER 1

LOOKING BACK ON STATION

TOP OF GROUT PAD AT ℄ BEARING ELEVATION

GIRDER	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
ELEVATION	2280.13	2280.37	2280.60	2280.84	2281.07	2281.31	2281.54	2281.78	2282.01	2282.25	2282.49	2282.72	2282.96	2283.20	2283.43	2283.67

SR I-90 FILE NO. SHEET BL6

Bridge Design Engr.	Khaleghi, B	M:\Z-Team\I-90 PHASE 3 SPARKS RD WB\window files\PIER 1 ELEVATION.wnd				REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor	Zeldenrust, RP					10	WASH.			
Designed By	Liu, S 10/20					JOB NUMBER 19Y007				
Checked By	Barkley, J 01/22					CONTRACT NO.				
Detailed By	Uhde, T 10/20									
Bridge Projects Engr.										
Prelim. Plan By										
Architect/Specialist		DATE	REVISION	BY	APP'D					

Mon Feb 07 12:12:27 2022

P.E. STAMP BOX
RICHARD P. ZELDENRUST
STATE OF WASHINGTON
25470
PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX
BIJAN KHALEGHI
STATE OF WASHINGTON
37695
PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE

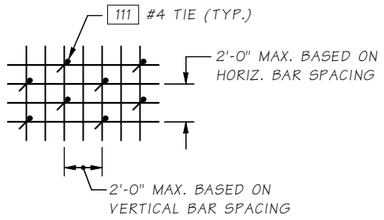
Washington State
Department of Transportation

I-90
CABIN CR I/C TO W EASTON I/C PHASE 3
ADD LANES / WILDLIFE BRIDGES
SPARKS RD BRIDGE WB NO. 90/117N

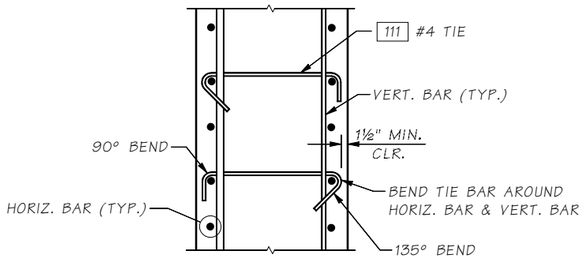
PIER 1
ELEVATION

BRIDGE SHEET NO. BL6

SHEET 1627 OF 1783 SHEETS

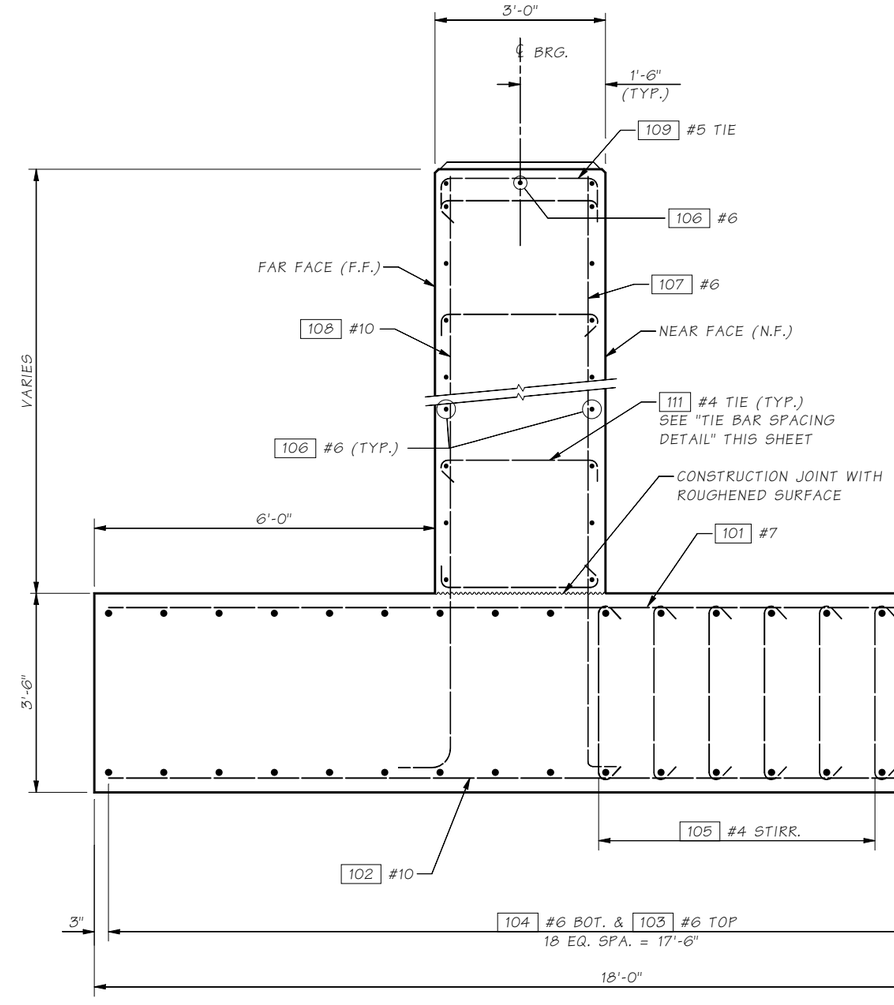


TIE BAR SPACING DETAIL

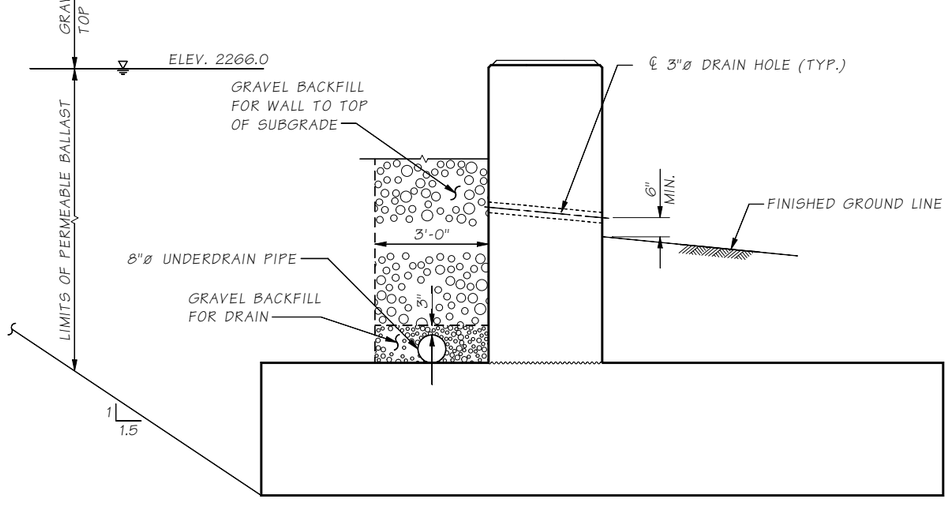


TIE BAR DETAIL

ALTERNATE 135° HOOK EVERY OTHER TIE BAR



SECTION A (BL6)



DRAINAGE DETAIL

SR I-90 FILE NO. ____ SHEET BL7

Bridge Design Engr.	Khaleghi, B	M:\Z-Team\I-90 PHASE 3 SPARKS RD WB\window files\PIER 1 DETAILS.wnd				REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor	Zeldenrust, RP					10	WASH.			
Designed By	Liu, S 12/20					JOB NUMBER 19Y007				
Checked By	Barkley, J 01/22					CONTRACT NO.				
Detailed By	Uhde, T 12/20									
Bridge Projects Engr.										
Prelim. Plan By										
Architect/Specialist		DATE	REVISION	BY	APP'D					

P.E. STAMP BOX
RICHARD P. ZELDENRUST — STATE OF WASHINGTON — 19470 — STRUCTURAL ENGINEER — PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX
BIJAN KHALEGHI — STATE OF WASHINGTON — 37965 — STRUCTURAL ENGINEER — PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE

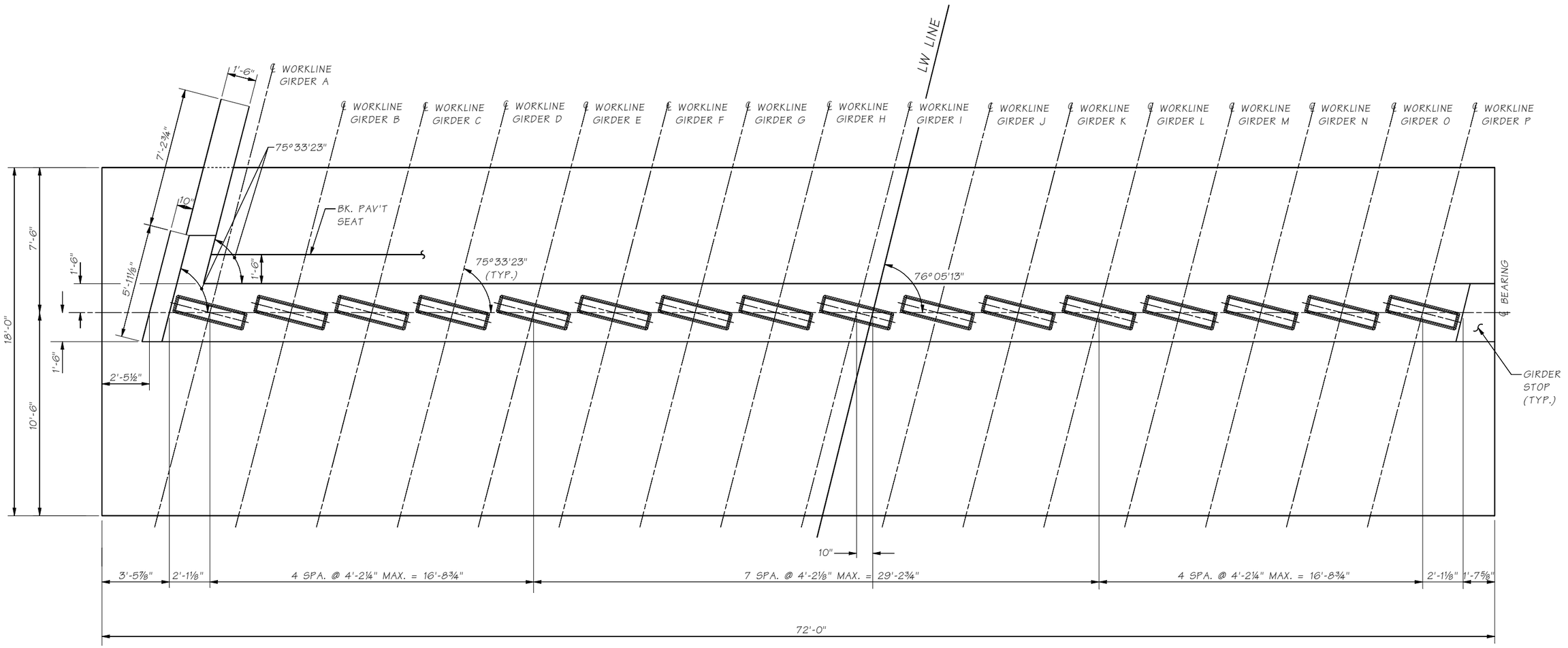
Washington State Department of Transportation

I-90
CABIN CR I/C TO W EASTON I/C PHASE 3
ADD LANES / WILDLIFE BRIDGES
SPARKS RD BRIDGE WB NO. 90/117N

PIER 1 DETAILS

BRIDGE SHEET NO. BL7
SHEET 1628 OF 1783 SHEETS

Mon Feb 07 12:12:28 2022



PIER 2 ~ PLAN

SR I-90 FILE NO. ____ SHEET BL8

Bridge Design Engr.	Khaleghi, B	M:\Z-Team\I-90 PHASE 3 SPARKS RD WB\window files\PIER 2 PLAN & ELEVATION.wnd				REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor	Zeldenrust, RP					10	WASH.			
Designed By	Liu, S 06/20									
Checked By	Barkley, J 01/22					JOB NUMBER 19Y007				
Detailed By	Uhde, T 06/20									
Bridge Projects Engr.						CONTRACT NO.				
Prelim. Plan By										
Architect/Specialist		DATE	REVISION	BY	APP'D					

P.E. STAMP BOX — RICHARD P. ZELDENRUST — STATE OF WASHINGTON — 25476 — PROFESSIONAL ENGINEER — SEE SHEET CT9 — DATE

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX — BIJAN KHALEGHI — STATE OF WASHINGTON — 27695 — PROFESSIONAL ENGINEER — SEE SHEET CT9 — DATE

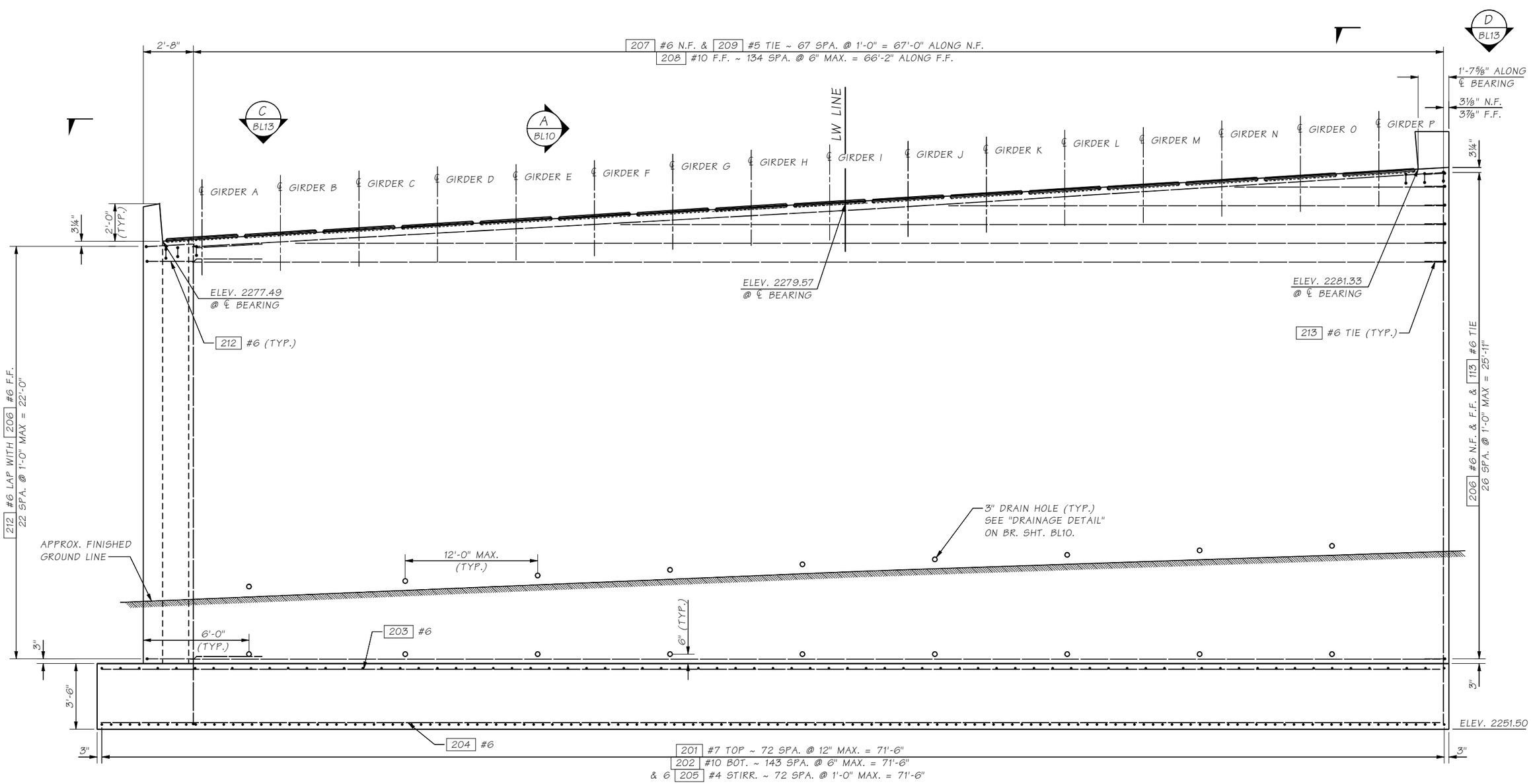
Washington State Department of Transportation

I-90
CABIN CR I/C TO W EASTON I/C PHASE 3
ADD LANES / WILDLIFE BRIDGES
SPARKS RD BRIDGE WB NO. 90/117N

PIER 2
PLAN

BRIDGE SHEET NO. BL8
SHEET 1629 OF 1783 SHEETS

Mon Feb 07 12:12:28 2022



ELEVATION ~ PIER 2

TOP OF GROUT PAD AT ℄ BEARING ELEVATION																
GIRDER	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
ELEVATION	2277.70	2277.94	2278.18	2278.42	2278.66	2278.90	2279.14	2279.38	2279.62	2279.86	2280.10	2280.34	2280.58	2280.83	2281.07	2281.31

SR I-90 FILE NO. SHEET BL9

Bridge Design Engr.	Khaleghi, B	M:\Z-Team\I-90 PHASE 3 SPARKS RD WB\window files\PIER 2 ELEVATION.wnd				REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor	Zeldenrust, RP					10	WASH.			
Designed By	Liu, S 10/20					JOB NUMBER 19Y007				
Checked By	Barkley, J 01/22					CONTRACT NO.				
Detailed By	Uhde, T 10/20									
Bridge Projects Engr.										
Prelim. Plan By										
Architect/Specialist		DATE	REVISION	BY	APP'D					

P.E. STAMP BOX
RICHARD P. ZELDENRUST
STATE OF WASHINGTON
21470
PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX
BIJAN KHALEGHI
STATE OF WASHINGTON
37880
PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE

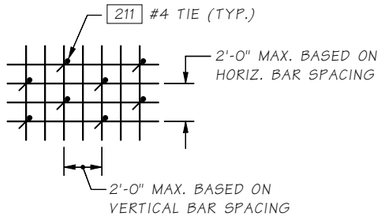
Washington State Department of Transportation

I-90
CABIN CR I/C TO W EASTON I/C PHASE 3
ADD LANES / WILDLIFE BRIDGES
SPARKS RD BRIDGE WB NO. 90/117N

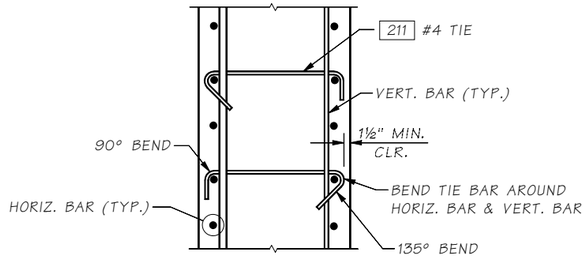
PIER 2 ELEVATION

BRIDGE SHEET NO. BL9
SHEET 1630 OF 1783 SHEETS

Mon Feb 07 12:12:28 2022

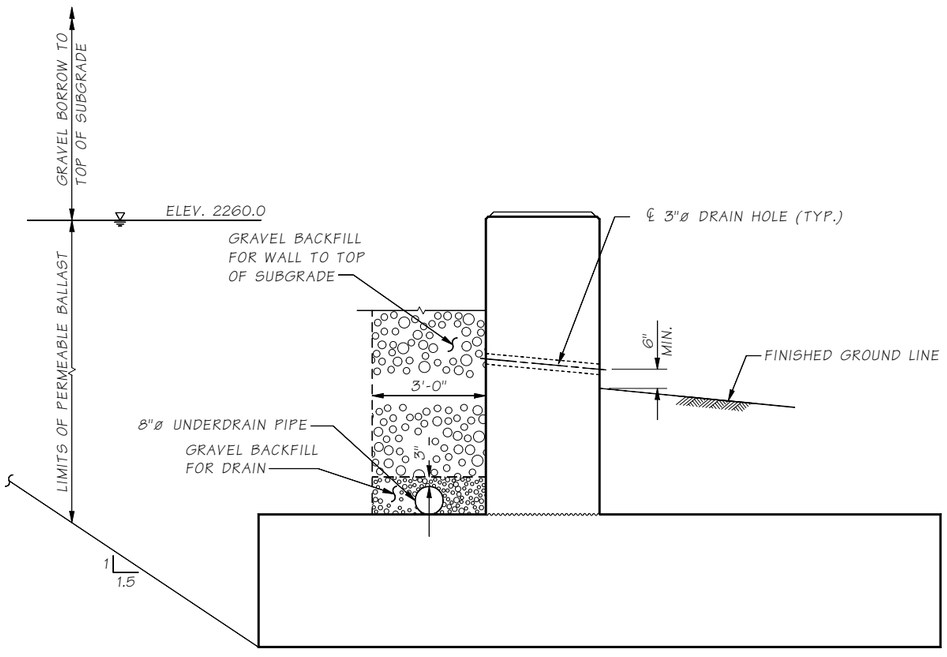


TIE BAR SPACING DETAIL

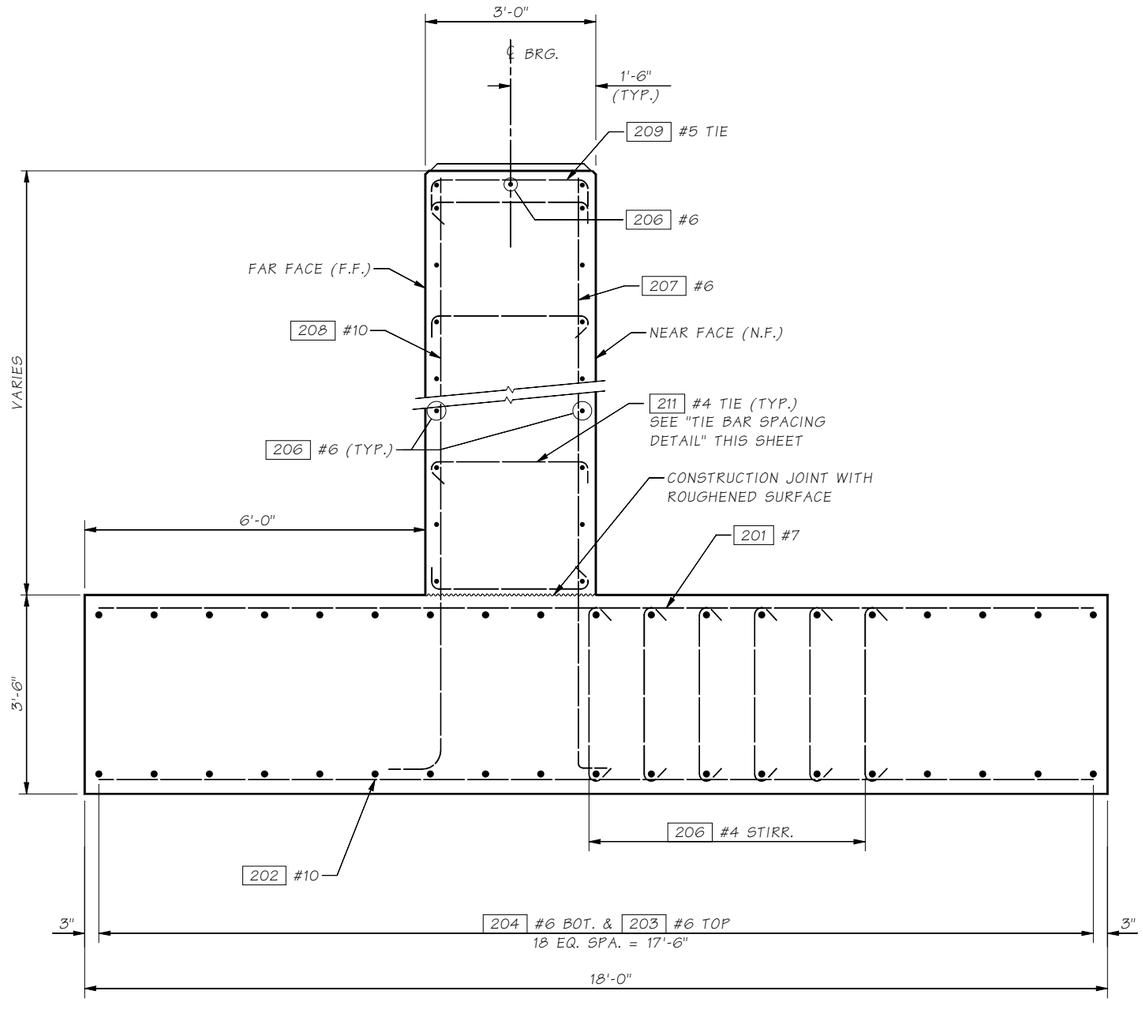


TIE BAR DETAIL

ALTERNATE 135° HOOK EVERY OTHER TIE BAR



DRAINAGE DETAIL



SECTION A / BL9

SR I-90 FILE NO. ____ SHEET BL10

Bridge Design Engr.	Khaleghi, B	M:\Z-Team\I-90 PHASE 3 SPARKS RD WB\window files\PIER 2 DETAILS.wnd				REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor	Zeldenrust, RP					10	WASH.			
Designed By	Liu, S 12/20					JOB NUMBER 19Y007				
Checked By	Barkley, J 01/22					CONTRACT NO.				
Detailed By	Uhde, T 12/20									
Bridge Projects Engr.										
Prelim. Plan By										
Architect/Specialist		DATE	REVISION	BY	APP'D					

P.E. STAMP BOX: RICHARD P. ZELDENRUST, STATE OF WASHINGTON, 24470, PROFESSIONAL ENGINEER, STRUCTURAL ENGINEER — SEE SHEET CT9 — DATE

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX: BIJAN KHALEGHI, STATE OF WASHINGTON, 37965, PROFESSIONAL ENGINEER, STRUCTURAL ENGINEER — SEE SHEET CT9 — DATE

Washington State Department of Transportation

I-90
CABIN CR I/C TO W EASTON I/C PHASE 3
ADD LANES / WILDLIFE BRIDGES
SPARKS RD BRIDGE WB NO. 90/117N

PIER 2 DETAILS

BRIDGE SHEET NO. BL10

SHEET 1631 OF 1783 SHEETS

Mon Feb 07 12:12:28 2022

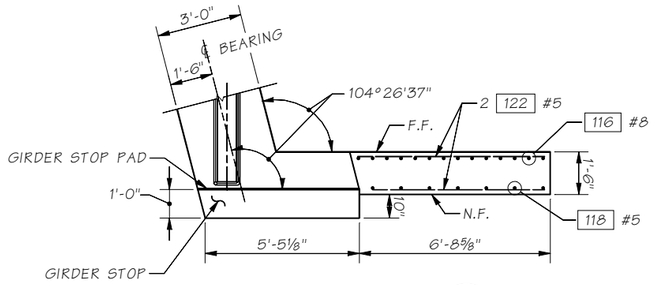
ELEVATION TABLE			
'A'	'B'	'C'	'D'
2279.80'	2280.06'	2281.62'	2281.91'

N.F. - NEAR FACE

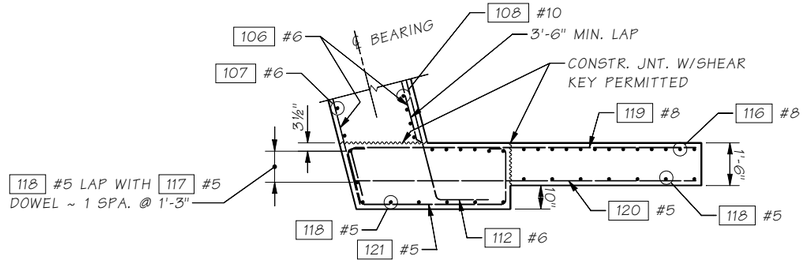
F.F. - FAR FACE

E.F. - EACH FACE

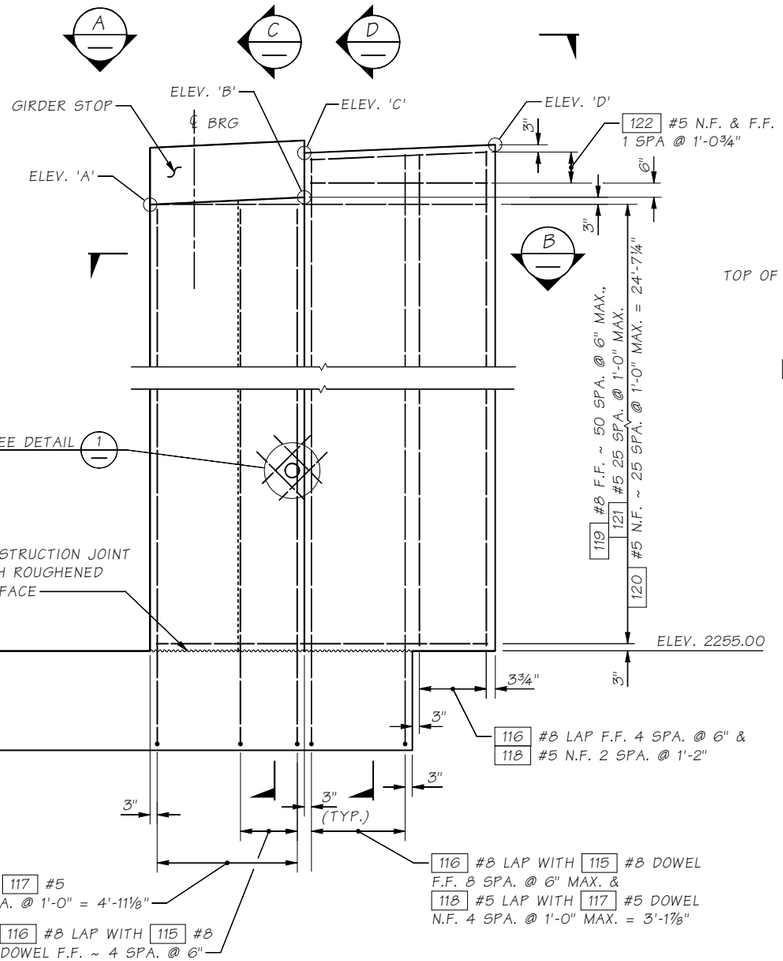
** - MEASURED ALONG N.F. OF WALL



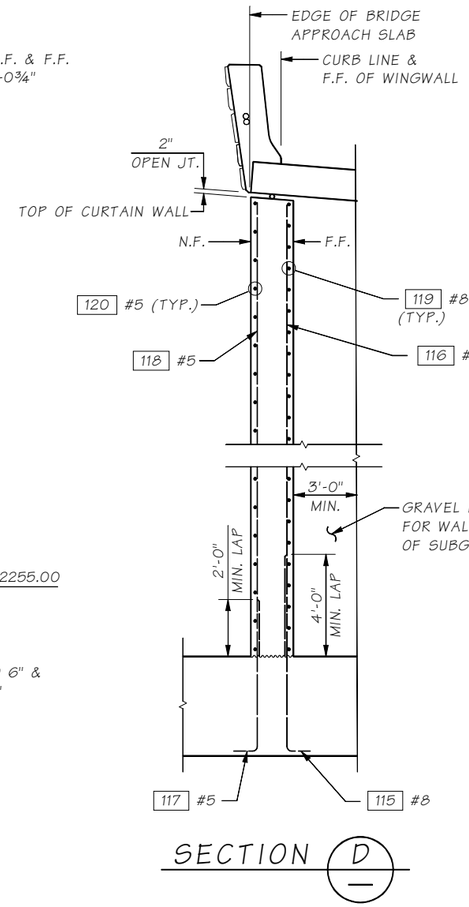
VIEW A



SECTION B



NW CURTAIN WALL ELEVATION



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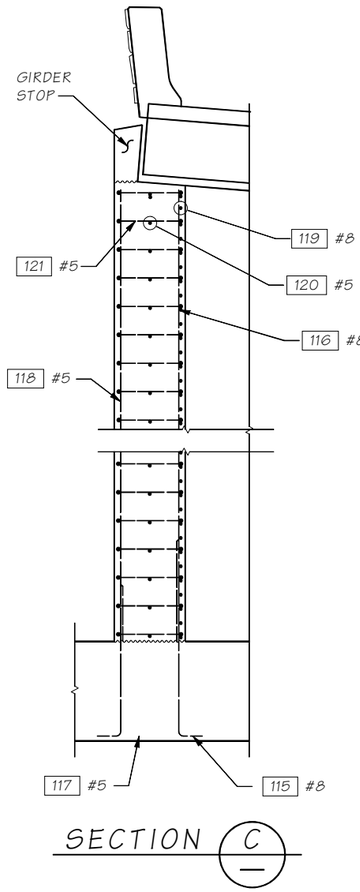

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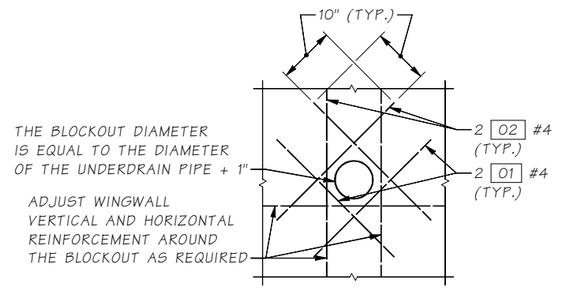

DETAIL 1

SR I-90 FILE NO. BL11 SHEET

Bridge Design Engr.	Khaleghi, B	M:\Z-Team\I-90 PHASE 3 SPARKS RD WB\window files\NW CURTAIN WALL DETAILS.wnd				REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor	Zeldenrust, RP					10	WASH.			
Designed By	Liu, S 12/20					JOB NUMBER 19Y007				
Checked By	Barkley, J 01/22					CONTRACT NO.				
Detailed By	Uhde, T 12/20									
Bridge Projects Engr.										
Prelim. Plan By										
Architect/Specialist		DATE	REVISION	BY	APP'D					

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RICHARD P. ZELDENRUST — STATE OF WASHINGTON — 25470 — PROFESSIONAL ENGINEER
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BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX
BIJAN KHALEGHI — STATE OF WASHINGTON — 27695 — PROFESSIONAL ENGINEER
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Washington State Department of Transportation

I-90
CABIN CR I/C TO W EASTON I/C PHASE 3
ADD LANES / WILDLIFE BRIDGES
SPARKS RD BRIDGE WB NO. 90/117N

NW CURTAIN WALL DETAILS

BRIDGE SHEET NO. BL11

SHEET 1632 OF 1783 SHEETS

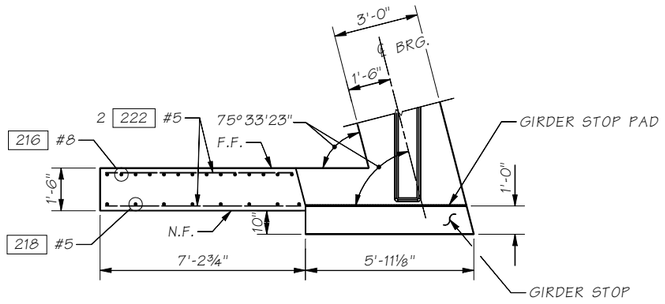
ELEVATION TABLE			
'A'	'B'	'C'	'D'
2277.55'	2277.31'	2278.87'	2278.56'

N.F. - NEAR FACE

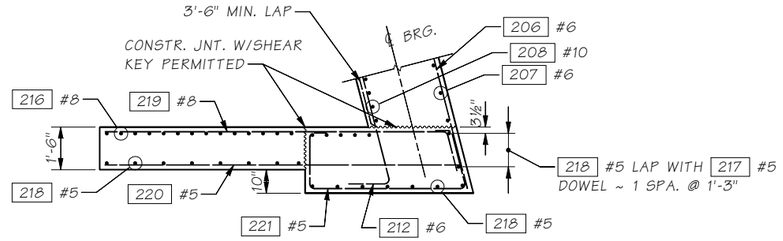
F.F. - FAR FACE

E.F. - EACH FACE

** - MEASURED ALONG N.F. OF WALL



VIEW A



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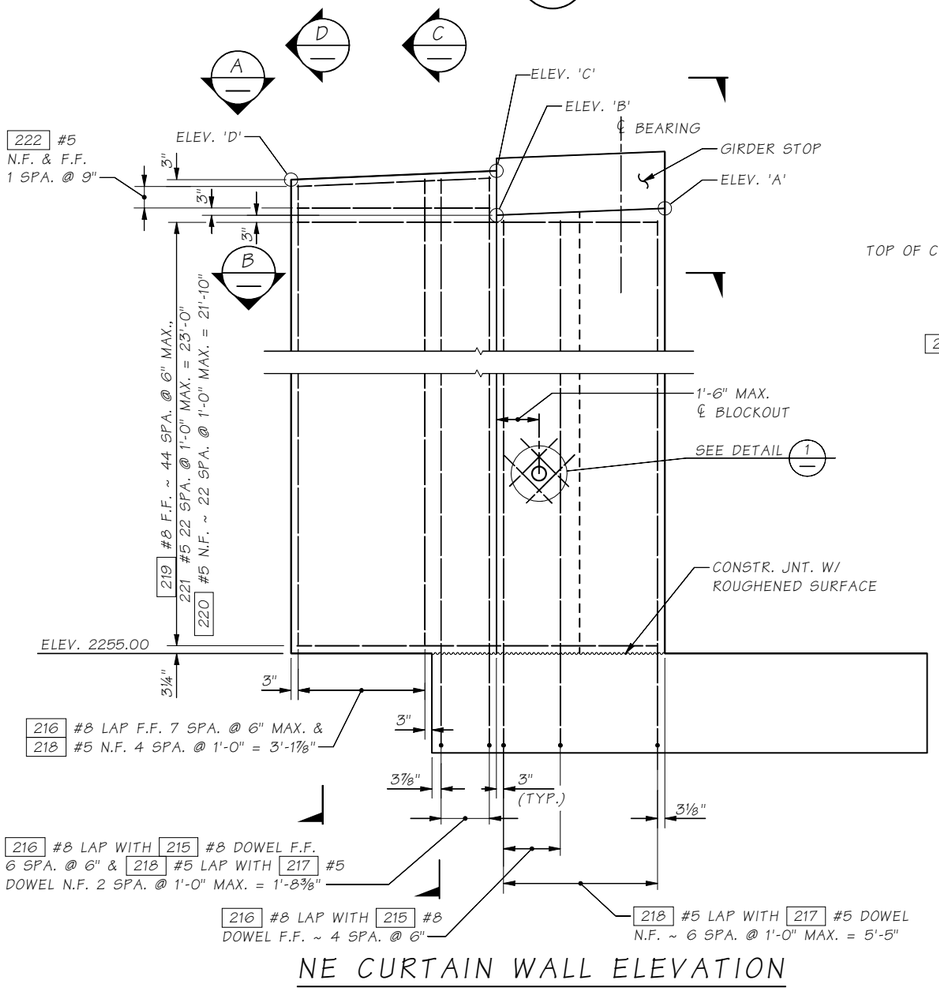
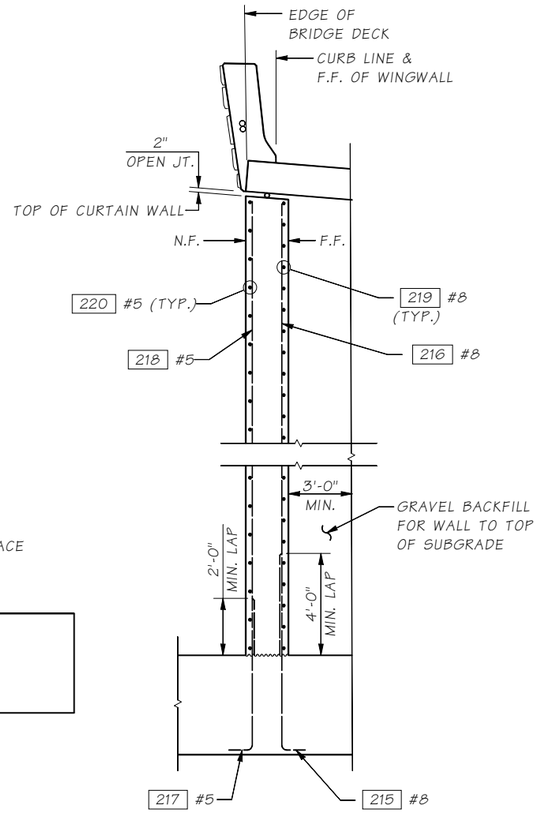


NE CURTAIN WALL ELEVATION



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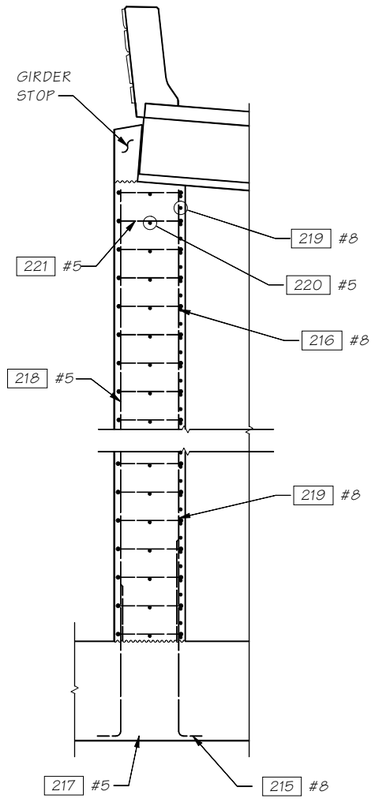

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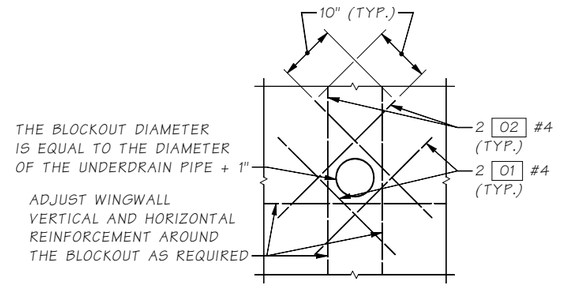

DETAIL 1

SR I-90 FILE NO. ____ SHEET BL12

Bridge Design Engr.	Khaleghi, B	M:\Z-Team\I-90 PHASE 3 SPARKS RD WB\window files\NE CURTAIN WALL DETAILS.wnd							
Supervisor	Zeldenrust, RP								
Designed By	Liu, S 12/20								
Checked By	Barkley, J 01/22								
Detailed By	Uhde, T 12/20								
Bridge Projects Engr.									
Prelim. Plan By									
Architect/Specialist		DATE	REVISION	BY	APP'D				

REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
10	WASH.			
JOB NUMBER 19Y007				
CONTRACT NO.				

P.E. STAMP BOX
RICHARD P. ZELDENRUST
STATE OF WASHINGTON
25470
STRUCTURAL ENGINEER
PROFESSIONAL ENGINEER
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P.E. STAMP BOX
BIJAN KHALEGHI
STATE OF WASHINGTON
STRUCTURAL ENGINEER
PROFESSIONAL ENGINEER
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DATE

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ADD LANES / WILDLIFE BRIDGES
SPARKS RD BRIDGE WB NO. 90/117N

NE CURTAIN WALL DETAILS

BRIDGE SHEET NO. BL12

SHEET 1633 OF 1783 SHEETS

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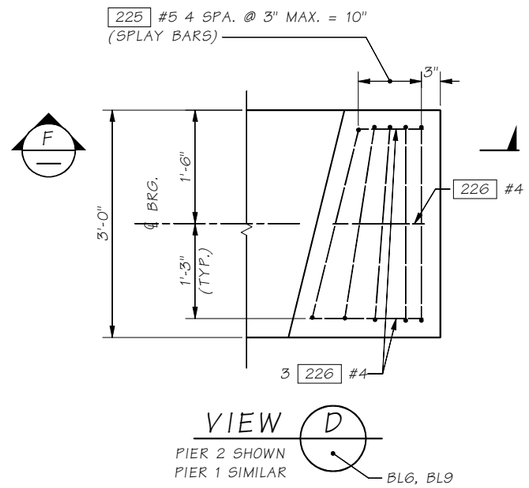
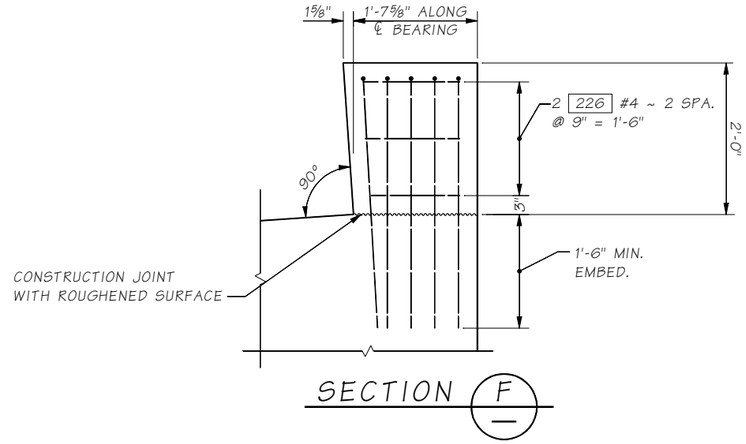


VIEW D

PIER 2 SHOWN
PIER 1 SIMILAR

BL6, BL9



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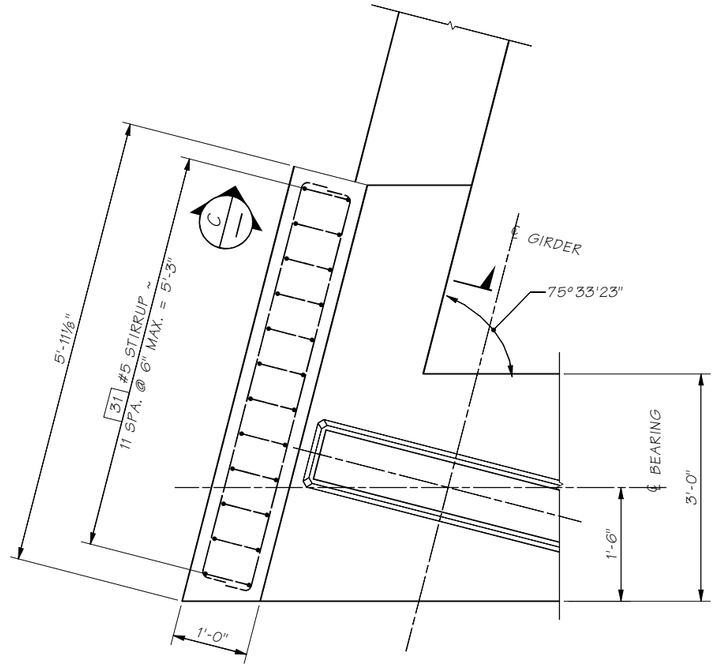
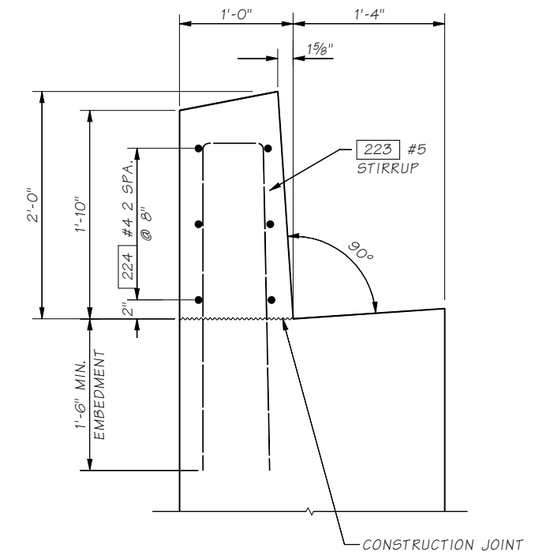


GIRDER STOP

PIER 2 SHOWN, PIER 1 SIMILAR



SECTION C

SR I-90 FILE NO. SHEET BL13

Bridge Design Engr.	Khaleghi, B	M:\Z-Team\I-90 PHASE 3 SPARKS RD WB\window files\BEARING DETAILS.wnd				REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor	Zeldenrust, RP					10	WASH.			
Designed By	Liu, S 12/20									
Checked By	Barkley, J 01/22					JOB NUMBER 19Y007				
Detailed By	Uhde, T 12/20									
Bridge Projects Engr.						CONTRACT NO.				
Prelim. Plan By										
Architect/Specialist		DATE	REVISION	BY	APP'D					

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P.E. STAMP BOX
RICHARD P. ZELDENRUST
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P.E. STAMP BOX
BIJAN KHALEGHI
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PROFESSIONAL ENGINEER
SEE SHEET CT9
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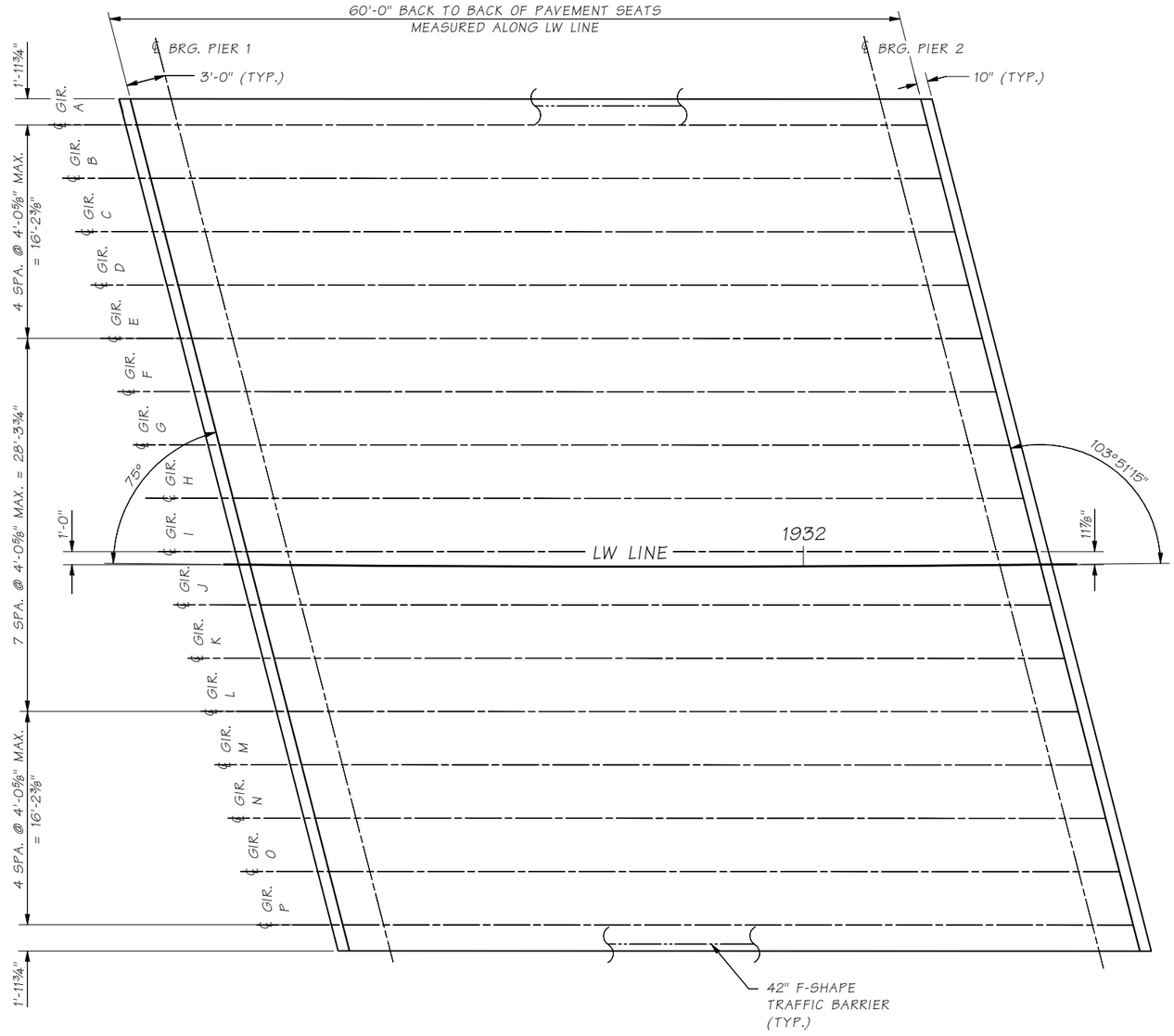
CABIN CR I/C TO W EASTON I/C PHASE 3
ADD LANES / WILDLIFE BRIDGES
SPARKS RD BRIDGE WB NO. 90/117N

GIRDER STOP DETAILS

BRIDGE SHEET NO. BL13
SHEET 1634 OF 1783 SHEETS



FRAMING PLAN

BEARING OF PIERS IS N 6° 51' 26" E

SR I-90 FILE NO. ____ SHEET BL14

Bridge Design Engr.	Khaleghi, B	M:\Z-Team\I-90 PHASE 3 SPARKS RD WB\window files\FRAMING PLAN.wnd				REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor	Zeldenrust, RP					10	WASH.			
Designed By	Liu, S 06/20					JOB NUMBER 19Y007				
Checked By	Barkley, J 01/22					CONTRACT NO.				
Detailed By	Uhde, T 06/20									
Bridge Projects Engr.										
Prelim. Plan By										
Architect/Specialist		DATE	REVISION	BY	APP'D					

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BIJAN KHALEGHI — STATE OF WASHINGTON — 37695 — PROFESSIONAL ENGINEER
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CABIN CR I/C TO W EASTON I/C PHASE 3
ADD LANES / WILDLIFE BRIDGES
SPARKS RD BRIDGE WB NO. 90/117N

FRAMING PLAN

BRIDGE SHEET NO. BL14

SHEET 1635 OF 1783 SHEETS

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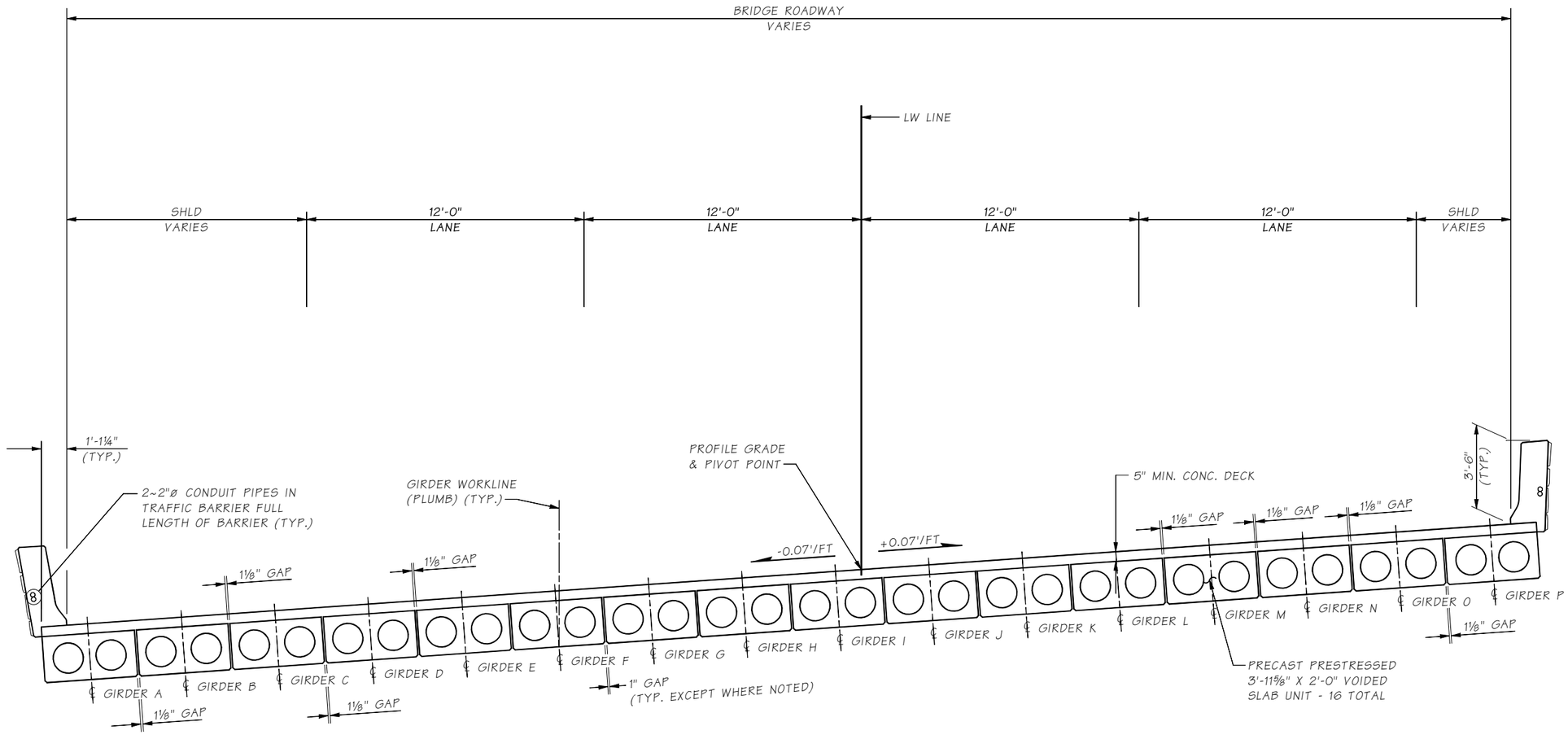

TYPICAL SECTION

SHOWN NEAR MID SPAN

SR I-90 FILE NO. ____ SHEET BL15

Bridge Design Engr.	Khaleghi, B	M:\Z-Team\I-90 PHASE 3 SPARKS RD WB\window files\TYPICAL SECTION.wnd			REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor	Zeldenrust, RP				10	WASH.			
Designed By	Liu, S 06/20				JOB NUMBER 19Y007				
Checked By	Barkley, J 01/22								
Detailed By	Uhde, T 06/20				CONTRACT NO.				
Bridge Projects Engr.									
Prelim. Plan By									
Architect/Specialist		DATE	REVISION	BY	APP'D				

P.E. STAMP BOX
RICHARD P. ZELDENRUST
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BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX
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STATE OF WASHINGTON
27066
PROFESSIONAL ENGINEER
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DATE

Washington State Department of Transportation

I-90
CABIN CR I/C TO W EASTON I/C PHASE 3
ADD LANES / WILDLIFE BRIDGES
SPARKS RD BRIDGE WB NO. 90/117N

TYPICAL SECTION

BRIDGE SHEET NO. BL15

SHEET 1636 OF 1783 SHEETS

Mon Feb 07 12:12:30 2022

GIRDER SCHEDULE

SPAN	GIRDER	GIRDER HEIGHT H	GIRDER WIDTH W	PLAN LENGTH (ALONG GIRDER GRADE) (SEE GIRDER NOTE 1)	VOIDS: NUMBER	VOIDS: DIAMETER	GIRDER END DETAILS: END 1 TYPE	GIRDER END DETAILS: END 2 TYPE	GIRDER END DETAILS: θ1	GIRDER END DETAILS: θ2	MIN. CONC. COMP. STRENGTH: @ 28-DAYS F'C (KSI)	MIN. CONC. COMP. STRENGTH: @ RELEASE F'CI (KSI)	PRESTRESSING STRANDS (SEE GIRDER NOTES 2-4) ROW 1: PERMANENT STRANDS	ROW 1: EXTENDED NUMBER AND LENGTH	ROW 1: DEBONDED NUMBER AND LENGTH	ROW 2: PERMANENT STRANDS	ROW 2: EXTENDED NUMBER AND LENGTH	ROW 2: DEBONDED NUMBER AND LENGTH	TOP ROW: PERMANENT STRANDS	TOP ROW: TEMPORARY STRANDS	"A" DIMENSION AT ℄ BEARINGS	DECK SCREED CAMBER C	MIDSPAN VERTICAL DEFLECTION D: LOWER BOUND @ 40 DAYS	MIDSPAN VERTICAL DEFLECTION D: UPPER BOUND @ 120 DAYS	TRANSVERSE REINFORCEMENT ZONE 1: BAR SIZE	ZONE 1: SPACING	ZONE 1: LENGTH	ZONE 2: BAR SIZE	ZONE 2: SPACING	ZONE 2: LENGTH	ZONE 3: BAR SIZE	ZONE 3: SPACING	ZONE 3: LENGTH	LONGITUDINAL REINFORCEMENT G1: BAR SIZE	G1: NO. OF BARS	G2: BAR SIZE	G2: NO. OF BARS	SHIPPING AND HANDLING DETAILS: MAXIMUM MIDSPAN VERTICAL DEFLECTION AT SHIPPING	L	L_1	L_2	K_θ MINIMUM SHIPPING SUPPORT ROTATIONAL SPRING CONSTANT (KIP-IN/RAD)	W_{CC} MINIMUM SHIPPING SUPPORT CNTR.-TO-CNTR. WHEEL SPACING
1	A-P	2'-0"	3'-11⅝"	57'-8¾"	2	1'-3¾"	A	A	75.57	75.57	10.0	7.5	19	4 @ 1'-4"	4 @ 3'-0"	3	-	-	2	4	6½"	⅜"	¾"	1½"	#5	3"	1'-0"	#5	5"	10'-0"	#5	9"	⟨5⟩	#4	55	#4	5	1⅜"	3'-0"	2'-0"	2'-0"	40,000.00	6'-0"

GIRDER NOTES

1. PLAN LENGTH SHALL BE INCREASED AS NECESSARY TO COMPENSATE FOR SHORTENING DUE TO PRESTRESS AND SHRINKAGE.

2. ALL STRANDS SHALL BE 0.6"ø AASHTO M203 GRADE 270 LOW RELAXATION STRANDS, JACKED TO 202.5 KSI (43.94 KIPS PER STRAND). STRANDS SHALL BE SYMMETRICAL ABOUT THE GIRDER CENTERLINE. EXTERIOR STRANDS IN EACH ROW SHALL BE FULLY BONDED.

3. SPACE EXTENDED STRANDS SYMMETRICALLY AND EVENLY ACROSS GIRDER WIDTH. STAGGER EXTENDED STRAND LOCATIONS WITH RESPECT TO GIRDERS IN ADJACENT SPANS.

4. DEBONDED STRANDS SHALL BE DEBONDED AT EACH GIRDER END FOR THE INDICATED LENGTH PARALLEL TO THE GIRDER CENTERLINE. DEBONDED STRANDS SHALL NOT BE EXTENDED PAST GIRDER ENDS. DEBONDED STRANDS SHALL BE SYMMETRICALLY PLACED ABOUT THE GIRDER CENTERLINE. DEBONDED LENGTHS OF PAIRS OF STRANDS THAT ARE SYMMETRICALLY POSITIONED ABOUT THE GIRDER CENTERLINE SHALL BE EQUAL.

⟨5⟩ = TO MIDSPAN.

SR I-90 FILE NO. ____ SHEET BL16

Bridge Design Engr.	Khaleghi, B		M:\Z-Team\I-90 PHASE 3 SPARKS RD WB\window files\SLAB GIRDER DETAIL 1.wnd				
Supervisor	Zeldenrust, RP						
Designed By	Liu, S	06/20					
Checked By	Barkley, J	01/22					
Detailed By	Uhde, T	06/20					
Bridge Projects Engr.							
Prelim. Plan By							
Architect/Specialist			DATE	REVISION	BY	APP'D	

REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
10	WASH.			

JOB NUMBER 19Y007

CONTRACT NO.

P.E. STAMP BOX
RICHARD P. ZELDENRUST — STATE OF WASHINGTON — 25470 — STRUCTURAL ENGINEER — PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE:

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX
BIJAN KHALEGHI — STATE OF WASHINGTON — 27695 — STRUCTURAL ENGINEER — PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE:

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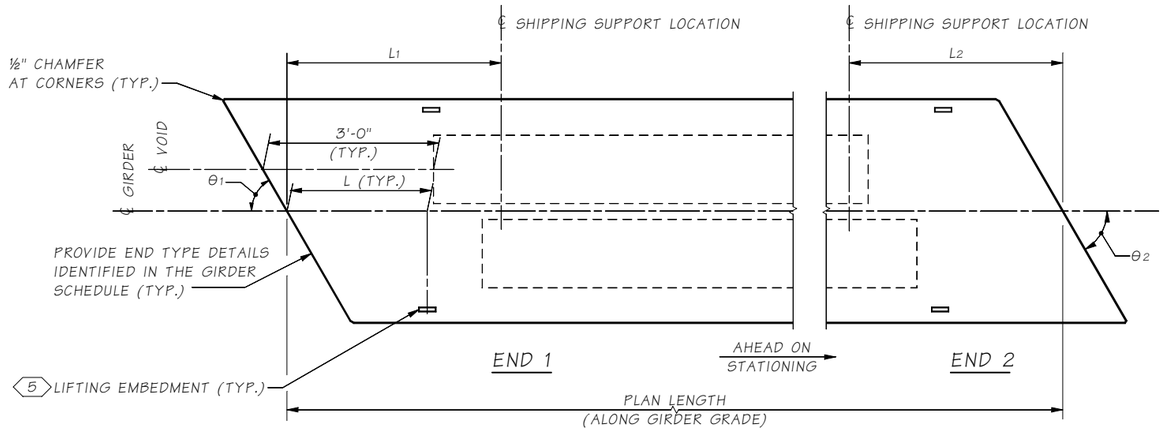
I-90
CABIN CR I/C TO W EASTON I/C PHASE 3
ADD LANES / WILDLIFE BRIDGES
SPARKS RD BRIDGE WB NO. 90/117N

SLAB GIRDER DETAILS 1 OF 3

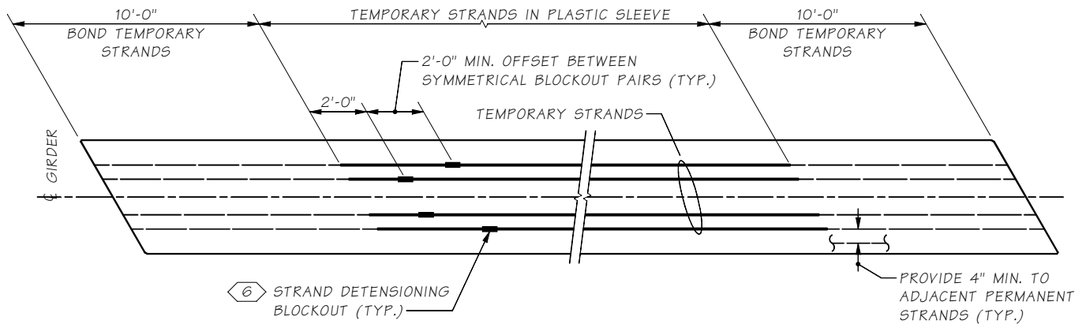
BRIDGE SHEET NO. BL16

SHEET 1637 OF 1783 SHEETS

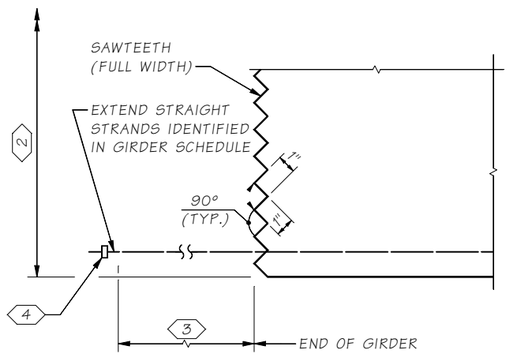
Mon Feb 07 12:12:30 2022



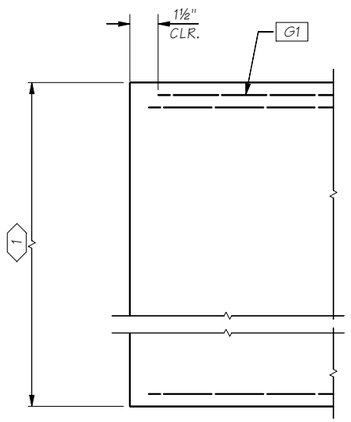
PLAN



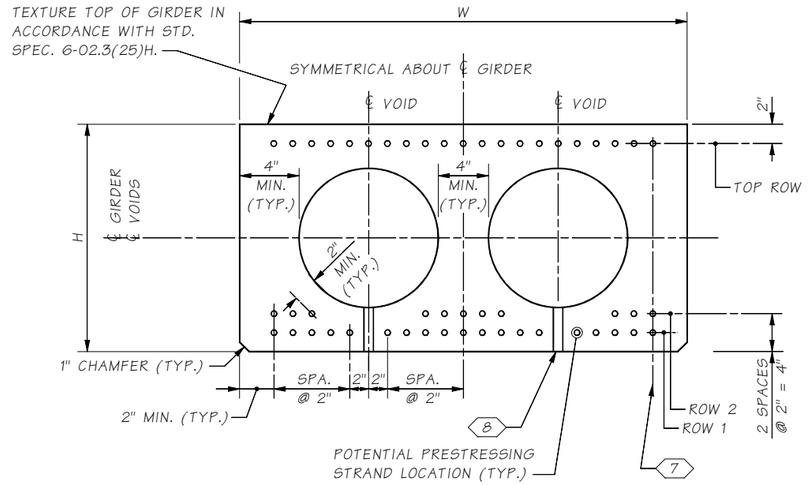
PLAN
TEMPORARY STRANDS



END TYPES A AND D



END TYPE B



TYPICAL GIRDER SECTION

GENERAL NOTES:

1. SEE GIRDER SCHEDULE FOR REQUIRED NUMBER OF TEMPORARY STRANDS. TEMPORARY STRANDS SHALL BE PLACED IN THE TOP ROW.
2. FOR GIRDERS ERECTED ON A LONGITUDINAL GRADE, STRAND DETENSIONING BLOCKOUTS SHALL BE PLACED AT THE LOW END OF THE GIRDER.
3. SEE "TEMPORARY STRAND CUTTING SEQUENCE" ON CONSTRUCTION SEQUENCE SHEET FOR TEMPORARY STRAND DETENSIONING PROCEDURE.

NOTES: 99 = SEE NOTE

1. CUT ALL STRANDS FLUSH WITH THE GIRDER END AND PAINT WITH AN APPROVED EPOXY RESIN, EXCEPT FOR EXTENDED STRANDS AS SHOWN.
2. CUT ALL STRANDS 1" BELOW CONCRETE SURFACE AND GROUT WITH AN APPROVED EPOXY GROUT.
3. EXTENSION LENGTH PARALLEL TO ℄ GIRDER. 1'-4" FOR END TYPE A. LENGTH AS IDENTIFIED IN THE GIRDER SCHEDULE FOR END TYPE D.
4. 1¹⁵⁄₁₆"ø MIN. STRAND CHUCK OR ASTM A108 2¾"ø x 1⅛" STRAND ANCHOR. ANCHOR STRAND WITH WEDGES BEFORE GIRDER ERECTION. VERIFY WEDGES ARE SEATED TIGHTLY IMMEDIATELY BEFORE PLACING DIAPHRAGM CONCRETE.
5. INSTALL LIFTING EMBEDMENTS IN ACCORDANCE WITH STD. SPEC. 6-02.3(25)L. REMOVE TO TOP OF GIRDER AFTER ERECTION.
6. 2½" x 6" x 2½" DEEP BLOCKOUT FOR STRAND DETENSIONING. FORM WITH EXPANDED POLYSTYRENE. REMOVE POLYSTYRENE JUST PRIOR TO CUTTING THE TEMPORARY STRANDS AND PREVENT MOISTURE FROM ENTERING THE BLOCKOUT AS DESCRIBED IN THE TEMPORARY STRAND CUTTING SEQUENCE.
7. EXTERIOR STRAND POSITIONS IN EACH ROW SHALL BE FILLED FIRST AND SHALL BE PERMANENT AND FULLY BONDED.
8. 1"ø POLYETHYLENE PIPE DRAIN AT BOTH ENDS OF EACH VOID. ENSURE WATER WITHIN VOID WILL DRAIN AFTER CASTING GIRDER.

SR I-90 FILE NO. SHEET BL17

Bridge Design Engr.	Khaleghi, B	M:\Z-Team\I-90 PHASE 3 SPARKS RD WB\window files\SLAB GIRDER DETAIL 2.wnd				REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor	Zeldenrust, RP					10	WASH.			
Designed By	Liu, S 06/20					JOB NUMBER 19Y007				
Checked By	Barkley, J 01/22					CONTRACT NO.				
Detailed By	Uhde, T 06/20									
Bridge Projects Engr.										
Prelim. Plan By										
Architect/Specialist		DATE	REVISION	BY	APP'D					

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P.E. STAMP BOX — BIJAN KHALEGHI — STATE OF WASHINGTON — 27695 — PROFESSIONAL ENGINEER — SEE SHEET CT9 DATE:

Washington State Department of Transportation

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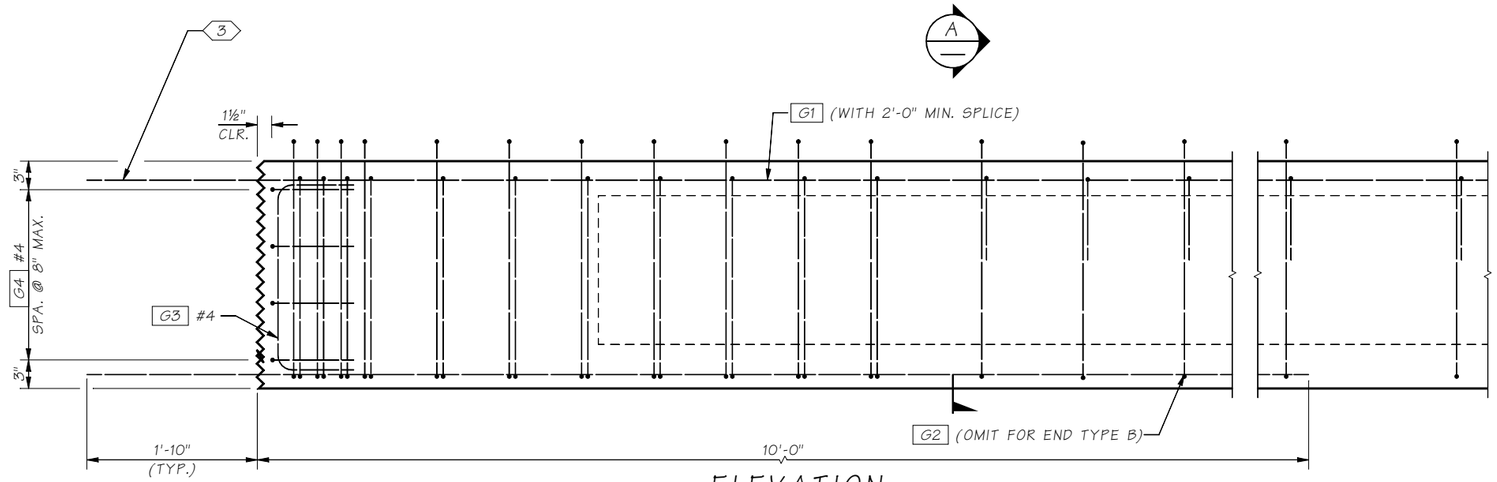
ADD LANES / WILDLIFE BRIDGES
SPARKS RD BRIDGE WB NO. 90/117N

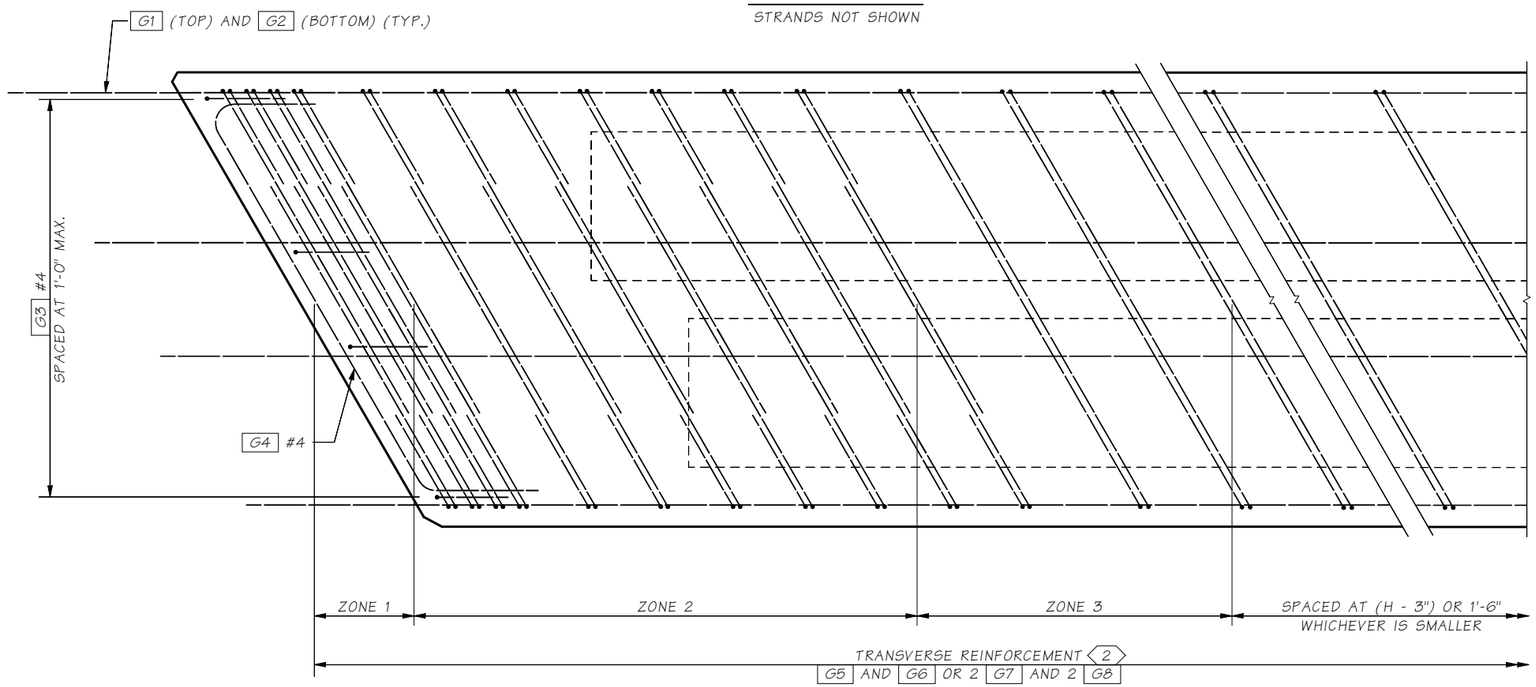
SLAB GIRDER DETAILS 2 OF 3

BRIDGE SHEET NO. BL17
SHEET 1638 OF 1783 SHEETS



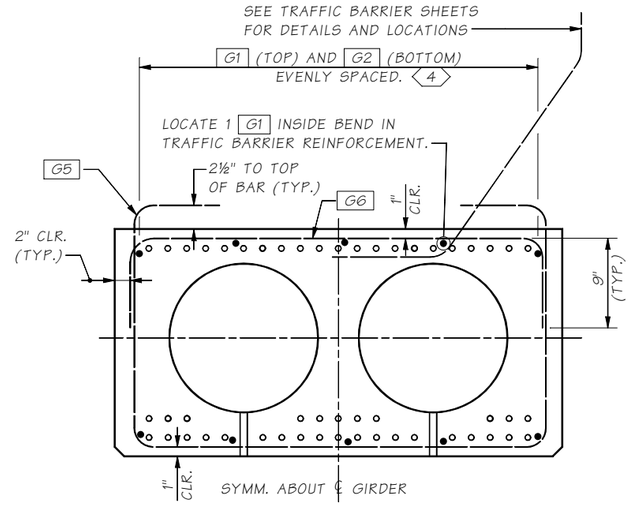
ELEVATION

STRANDS NOT SHOWN



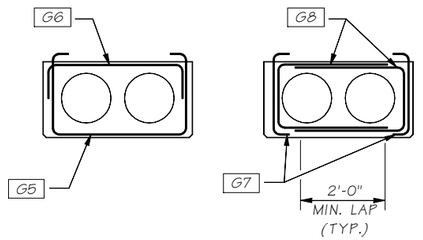
PLAN

1



SECTION A

G5 AND G6 SHOWN, 2 G7 AND 2 G8 SIMILAR.



TRANSVERSE REINFORCEMENT OPTIONS

GENERAL NOTES:

1. DEFORMED WELDED WIRE REINFORCEMENT MAY BE SUBSTITUTED FOR MILD REINFORCEMENT IN ACCORDANCE WITH STANDARD SPECIFICATION 6-02.3(25)A.

NOTES:

<99> = SEE NOTE

<1> TRAFFIC BARRIER BARS NOT SHOWN FOR CLARITY. SEE TRAFFIC BARRIER SHEETS FOR DETAILS AND LOCATIONS. OTHER END SIMILAR. STRANDS NOT SHOWN.

<2> SEE GIRDER SCHEDULE FOR BAR SIZE AND SPACING AND LENGTH OF ZONES.

<3> FIELD BEND G1 TO OBTAIN 1½" COVER AT PAVEMENT SEAT IF NECESSARY. DO NOT EXTEND AND PROVIDE 1½" CLR. TO GIRDER END FOR END TYPE B.

<4> MAY BE BUNDLED IF SPACING DOES NOT EXCEED 1'-0". SEE GIRDER SCHEDULE.

SR I-90 FILE NO. SHEET BL18

Bridge Design Engr.	Khaleghi, B	M:\Z-Team\I-90 PHASE 3 SPARKS RD WB\window files\SLAB GIRDER DETAIL 3.wnd			REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor	Zeldenrust, RP				10	WASH.			
Designed By	Liu, S 06/20				JOB NUMBER 19Y007				
Checked By	Barkley, J								
Detailed By	Uhde, T 06/20				CONTRACT NO.				
Bridge Projects Engr.									
Prelim. Plan By									
Architect/Specialist		DATE	REVISION	BY	APP'D				

Mon Feb 07 12:12:30 2022

P.E. STAMP BOX — RICHARD P. ZELDENRUST — STATE OF WASHINGTON — 35470 — STRUCTURAL ENGINEER — PROFESSIONAL ENGINEER — SEE SHEET CT9 DATE

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX — BIJAN KHALEGHI — STATE OF WASHINGTON — 37906 — STRUCTURAL ENGINEER — PROFESSIONAL ENGINEER — SEE SHEET CT9 DATE

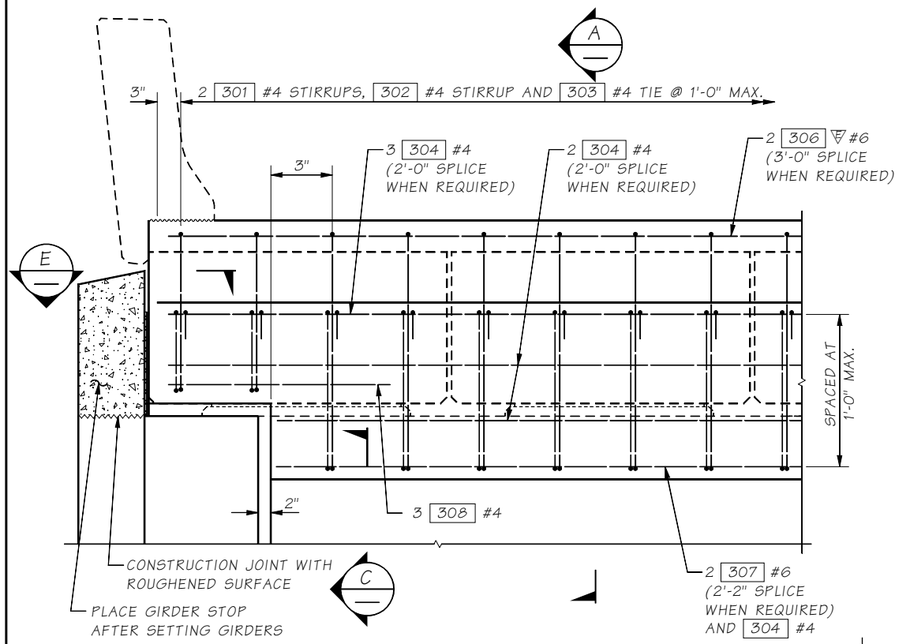
Washington State Department of Transportation

I-90
CABIN CR I/C TO W EASTON I/C PHASE 3
ADD LANES / WILDLIFE BRIDGES
SPARKS RD BRIDGE WB NO. 90/117N

SLAB GIRDER DETAILS 3 OF 3

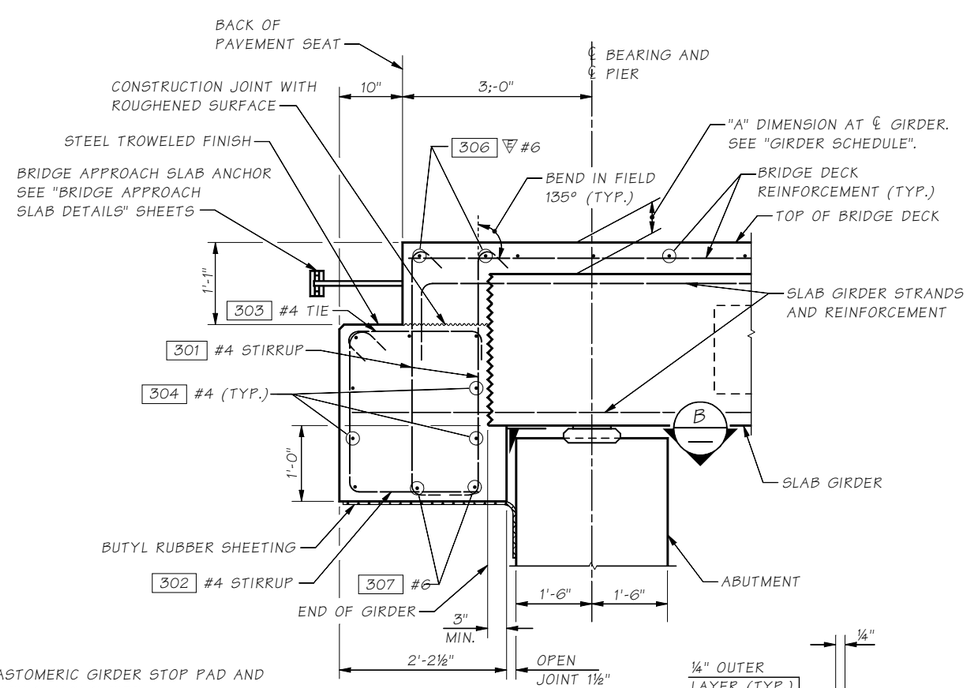
BRIDGE SHEET NO. BL18

SHEET 1639 OF 1783 SHEETS



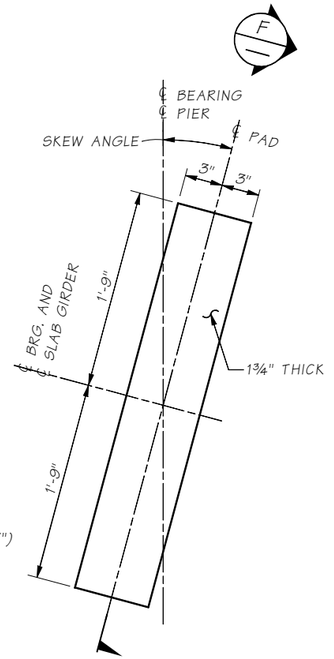
ELEVATION END DIAPHRAGM

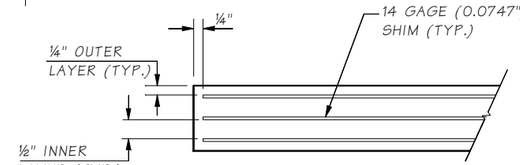
DIMENSIONS ARE PARALLEL TO ℄ PIER



SECTION A

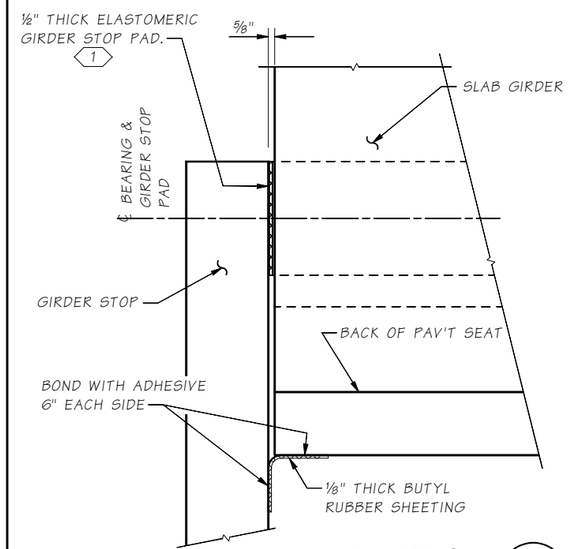
DIMENSIONS ARE NORMAL TO ℄ PIER



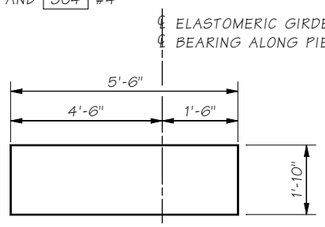


SECTION F

ELASTOMERIC BEARING PAD

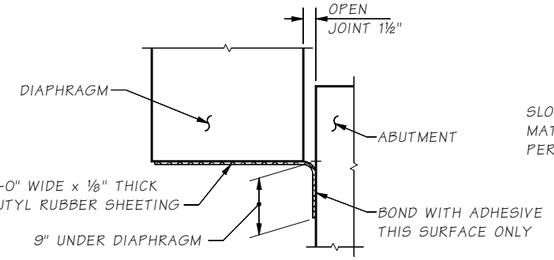


SECTION E

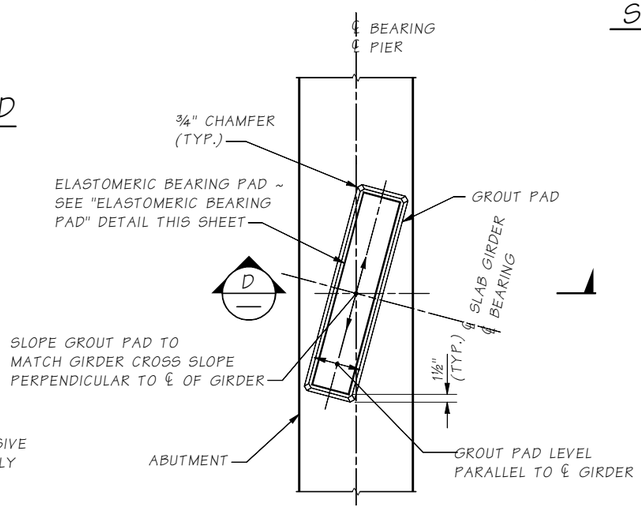


ELASTOMERIC GIRDER STOP PAD

SHEAR MODULUS = 165 PSI

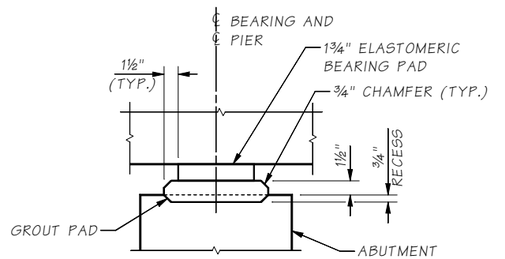


SECTION C



VIEW B

2



SECTION D

NOTES:

99 = SEE PLAN NOTE.

1 BOND TO GIRDER STOP WITH APPROVED ADHESIVE.

2 FULL BEARING OF SLAB UNIT IS REQUIRED AT EACH ELASTOMERIC BEARING

SR I-90 FILE NO. ____ SHEET BL19

Bridge Design Engr.	Khaleghi, B	M:\Z-Team\I-90 PHASE 3 SPARKS RD WB\window files\SLAB GIRDER END DIAPHRAGM.wnd			REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor	Zeldenrust, RP				10	WASH.			
Designed By	Liu, S 06/20				JOB NUMBER 19Y007				
Checked By	Barkley, J 01/22				CONTRACT NO.				
Detailed By	Uhde, T 06/20								
Bridge Projects Engr.									
Prelim. Plan By									
Architect/Specialist		DATE	REVISION	BY	APP'D				

RICHARD P. ZELDENRUST — STATE OF WASHINGTON — 25470 — PROFESSIONAL ENGINEER — P.E. STAMP BOX — SEE SHEET CT9 — DATE

BRIDGE AND STRUCTURES OFFICE

JULIAN KHALEGHI — STATE OF WASHINGTON — 27006 — PROFESSIONAL ENGINEER — P.E. STAMP BOX — SEE SHEET CT9 — DATE

Washington State Department of Transportation

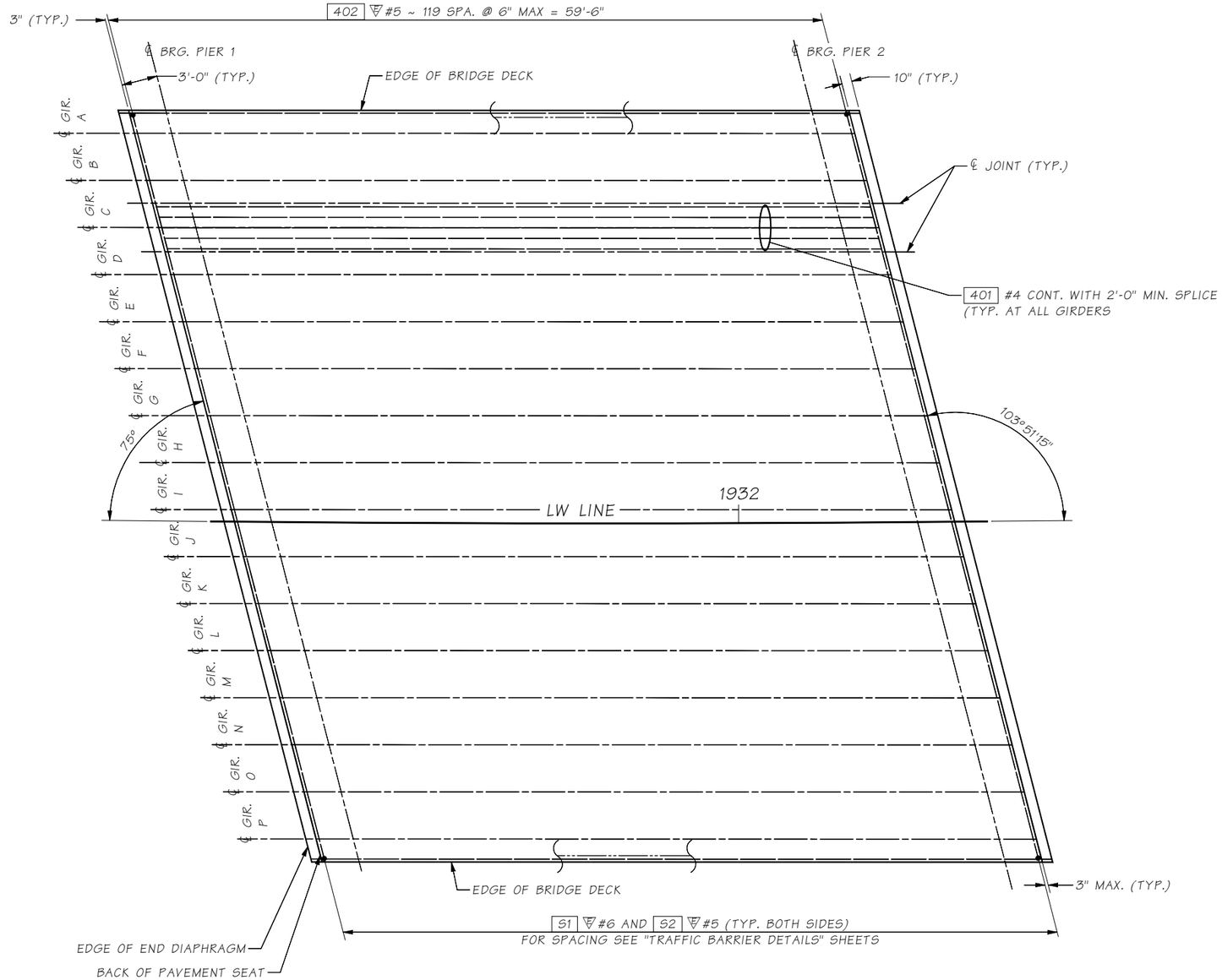
I-90
CABIN CR I/C TO W EASTON I/C PHASE 3
ADD LANES / WILDLIFE BRIDGES
SPARKS RD BRIDGE WB NO. 90/117N

SLAB GIRDER END DIAPHRAGM

BRIDGE SHEET NO. BL19

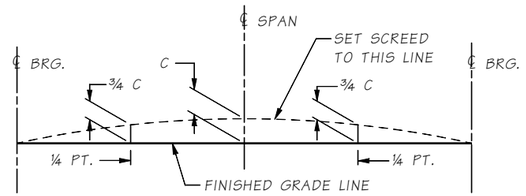
SHEET 1640 OF 1783 SHEETS

Mon Feb 07 12:12:31 2022



PLAN

BRIDGE DECK REINFORCEMENT



SCREED SETTING DIMENSIONS

FOR DIMENSION "C" SEE GIRDER SCHEDULE

SR I-90 FILE NO. ____ SHEET BL20

Bridge Design Engr.	Khaleghi, B	M:\Z-Team\I-90 PHASE 3 SPARKS RD WB\window files\BRIDGE DECK REINF.wnd			REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor	Zeldenrust, RP				10	WASH.			
Designed By	Liu, S 06/20				JOB NUMBER 19Y007				
Checked By	Barkley, J 01/22				CONTRACT NO.				
Detailed By	Uhde, T 06/20								
Bridge Projects Engr.									
Prelim. Plan By									
Architect/Specialist		DATE	REVISION	BY	APP'D				

P.E. STAMP BOX: RICHARD P. ZELDENRUST, STATE OF WASHINGTON, 25470, PROFESSIONAL ENGINEER — SEE SHEET CT9 — DATE

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX: BIJAN KHALEGHI, STATE OF WASHINGTON, 27695, PROFESSIONAL ENGINEER — SEE SHEET CT9 — DATE

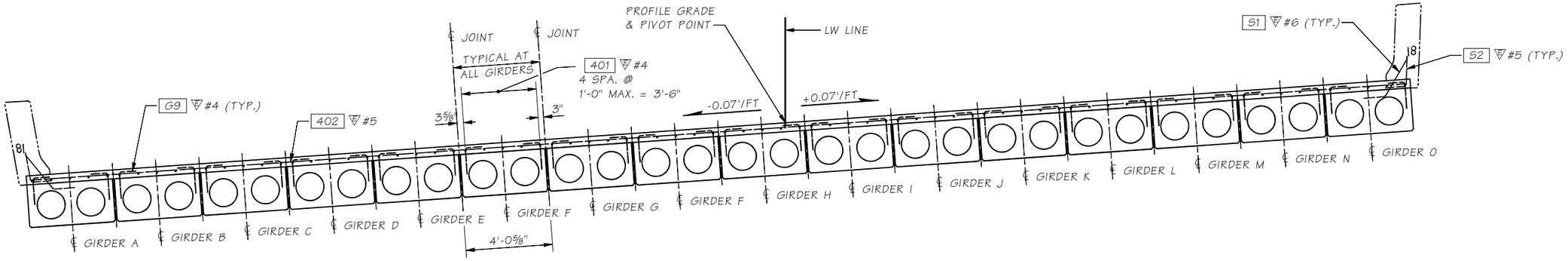
Washington State Department of Transportation

I-90
CABIN CR I/C TO W EASTON I/C PHASE 3
ADD LANES / WILDLIFE BRIDGES
SPARKS RD BRIDGE WB NO. 90/117N

BRIDGE DECK REINFORCEMENT PLAN

BRIDGE SHEET NO. BL20
SHEET 1641 OF 1783 SHEETS

Mon Feb 07 12:12:31 2022



SECTION
BRIDGE DECK REINFORCEMENT

SR I-90 FILE NO. ____ SHEET BL21

Bridge Design Engr.	Khaleghi, B	M:\Z-Team\I-90 PHASE 3 SPARKS RD WB\window files\BRIDGE DECK REINF SECTION.wnd			REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS	P.E. STAMP BOX	BRIDGE AND STRUCTURES OFFICE
Supervisor	Zeldenrust, RP				10	WASH.				RICHARD P. ZELDENRUST, STATE OF WASHINGTON, 25490, STRUCTURAL ENGINEER, PROFESSIONAL ENGINEER	
Designed By	Liu, S 06/20				JOB NUMBER 19Y007					SEE SHEET CT9 DATE:	
Checked By	Barkley, J 01/22				CONTRACT NO.					P.E. STAMP BOX: BIJAN KHALEGHI, STATE OF WASHINGTON, 27695, STRUCTURAL ENGINEER, PROFESSIONAL ENGINEER	
Detailed By	Uhde, T 06/20									SEE SHEET CT9 DATE:	
Bridge Projects Engr.											
Prelim. Plan By											
Architect/Specialist		DATE	REVISION	BY	APP'D						

Mon Feb 07 12:12:31 2022

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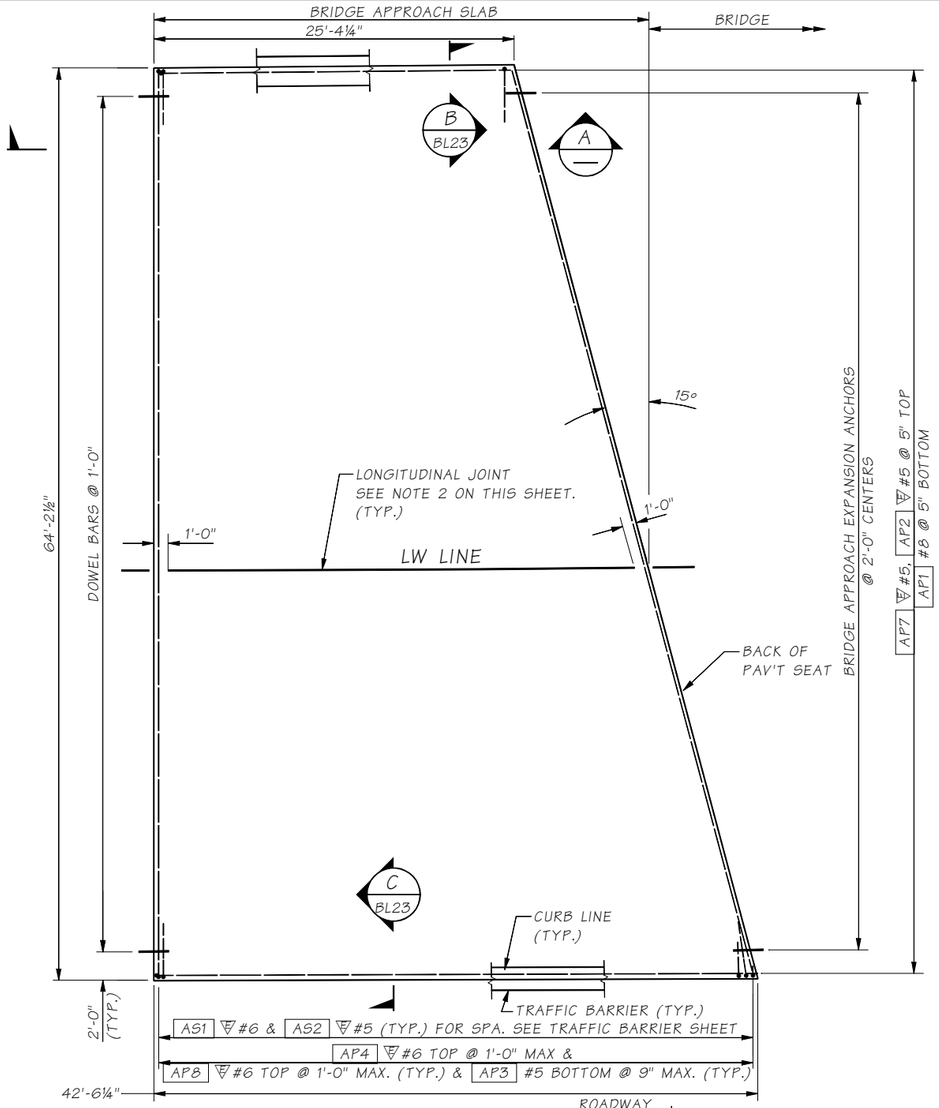
I-90
CABIN CR I/C TO W EASTON I/C PHASE 3
ADD LANES / WILDLIFE BRIDGES
SPARKS RD BRIDGE WB NO. 90/117N

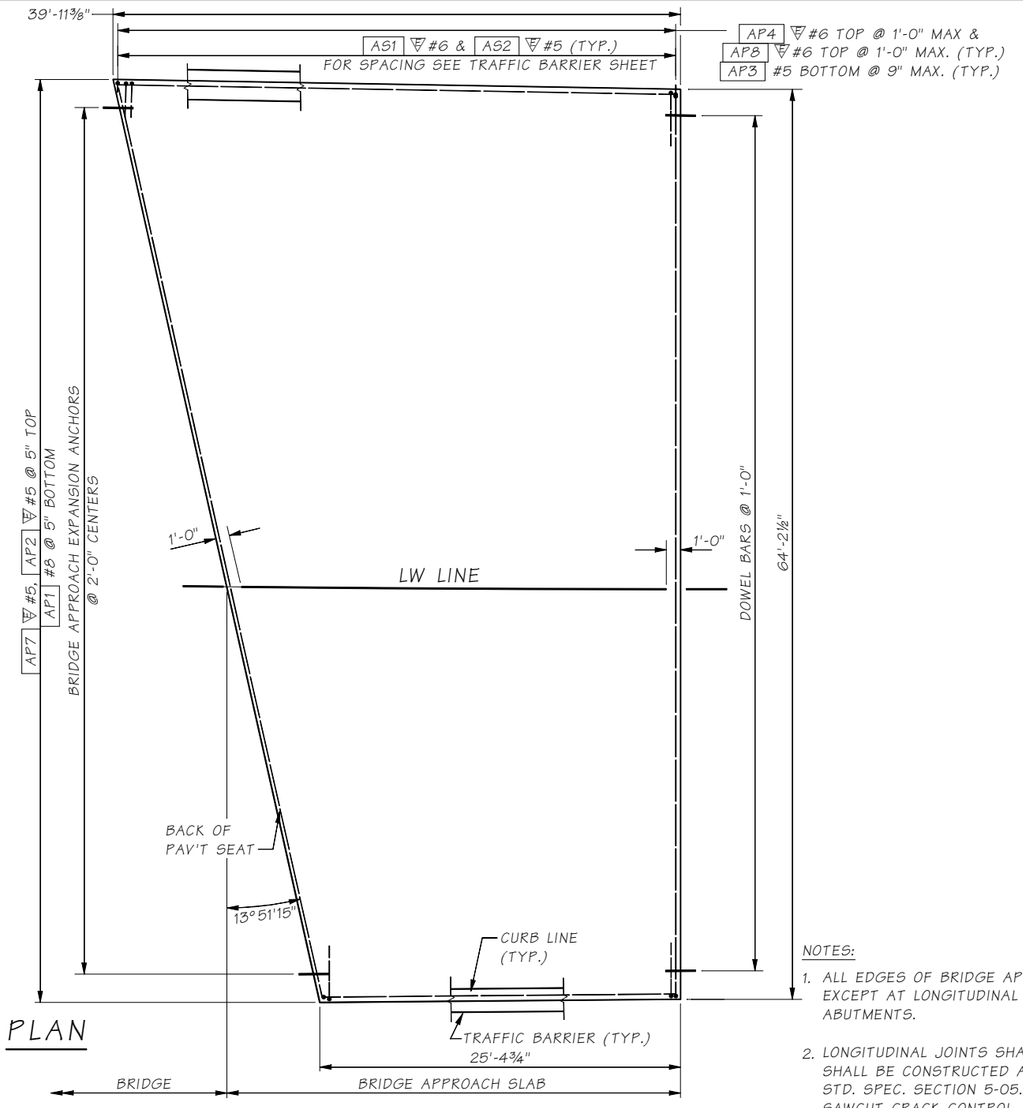
BRIDGE DECK REINFORCEMENT SECTION

BRIDGE SHEET NO. BL21

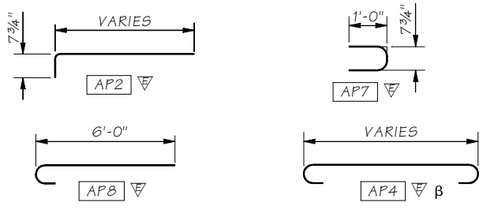
SHEET 1642 OF 1783 SHEETS



PLAN

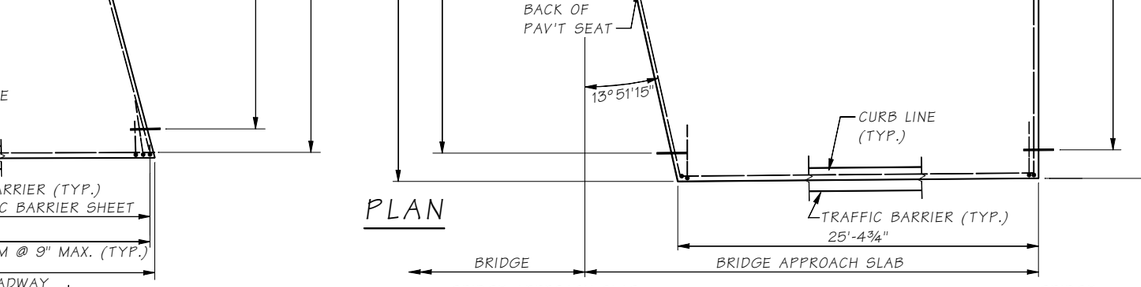


BENDING DIAGRAM



▽ = EPOXY COATED REINFORCING STEEL

NOTE: ALL DIMENSIONS ARE OUT TO OUT



SECTION A

NOTES:

1. ALL EDGES OF BRIDGE APPROACH SLAB SHALL HAVE ½" RADIUS EXCEPT AT LONGITUDINAL JOINTS AND ADJACENT TO L-TYPE ABUTMENTS.
2. LONGITUDINAL JOINTS SHALL BE PLACED ON LANE LINES AND SHALL BE CONSTRUCTED AND SEALED IN ACCORDANCE WITH STD. SPEC. SECTION 5-05.3(8). JOINTS MAY BE EITHER A SAWCUT CRACK CONTROL JOINTOR A CONSTRUCTION JOINT. SAWCUT JOINTS SHALL TERMINATE 1'-0" BEFORE REACHING EDGE OF SLAB AND MUST BE SAW CUT AS SOON AS POSSIBLE AFTER PLACEMENT OF CONCRETE. SEE "LONGITUDINAL JOINT DETAIL" ON BRIDGE APPROACH SLAB DETAILS 2 OF 3.
3. THE MINIMUM LAP SPLICE OF #5 IS 2'-0", ▽#5 IS 2'-6", ▽#6 IS 3'-0", AND #8 IS 3'-3". ALL LAP SPLICES SHALL BE STAGGERED SO THAT NO MORE THAN 50% OF REBAR IS SPLICED AT THE SAME LOCATION. LAP SPLICES SHALL BE LOCATED WITHIN THE MIDDLE HALF OF THE BRIDGE APPROACH SLAB. OPTIONAL SPLICES ARE ALLOWED FOR AP4 ▽#6.
4. FOR TRAFFIC BARRIER DETAILS, INCLUDING ANY BRIDGE APPROACH SLAB BLOCKOUT INFORMATION, SEE TRAFFIC BARRIER SHEETS.

Bridge Design Engr.	Khaleghi, B		M:\Z-Team\I-90 PHASE 3 SPARKS RD WB\window files\APPROACH SLAB DET 1.wnd							
Supervisor	Zeldenrust, RP									
Designed By	Liu, S	02/21								
Checked By	Barkley, J	01/22								
Detailed By	Uhde, T	02/21								
Bridge Projects Engr.										
Prelim. Plan By										
Architect/Specialist			DATE	REVISION	BY	APP'D				

REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
10	WASH.			
JOB NUMBER 19Y007				
CONTRACT NO.				

P.E. STAMP BOX
RICHARD P. ZELDENRUST — STATE OF WASHINGTON — 25470 — STRUCTURAL ENGINEER — PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE:

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX
BIJAN KHALEGHI — STATE OF WASHINGTON — 27695 — STRUCTURAL ENGINEER — PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE:

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I-90
CABIN CR I/C TO W EASTON I/C PHASE 3
ADD LANES / WILDLIFE BRIDGES
SPARKS RD BRIDGE WB NO. 90/117N

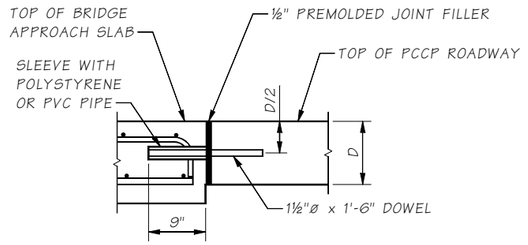
APPROACH SLAB
DETAILS 1 OF 3

BRIDGE SHEET NO. BL22

SHEET 1643 OF 1783 SHEETS

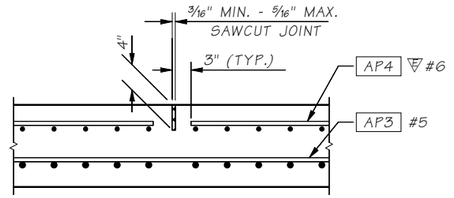
SR I-90 FILE NO. ____ SHEET BL22

Mon Feb 07 12:12:31 2022

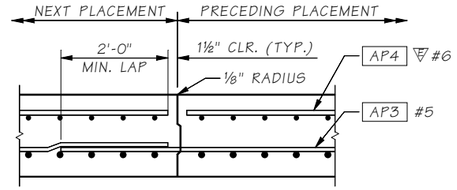


PCCP ROADWAY DOWEL BAR DETAIL

PCCP ROADWAY DOWELS SHALL BE INSTALLED PARALLEL TO ROADWAY AND TO EACH OTHER.

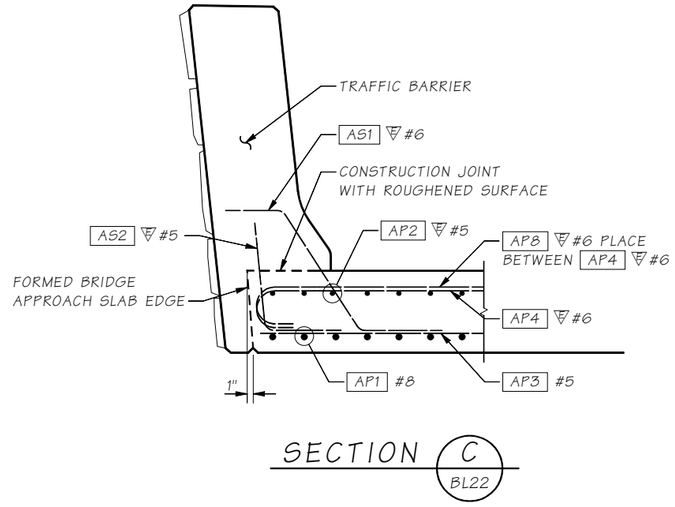


LONGITUDINAL JOINT DETAIL



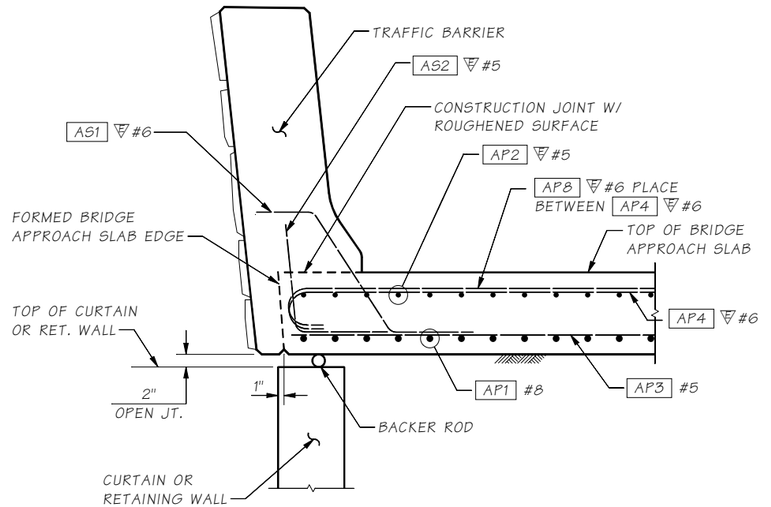
ALTERNATE LONGITUDINAL JOINT DETAIL

EDGE PRECEDING PLACEMENT ONLY WITH ⅛" RADIUS.



SECTION C

BL22



SECTION B

BL22

SR 1-90 FILE NO. SHEET BL23

Bridge Design Engr.	Khaleghi, B	M:\Z-Team\I-90 PHASE 3 SPARKS RD WB\window files\APPROACH SLAB DET 2.wnd				REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor	Zeldenrust, RP					10	WASH.			
Designed By	Liu, S 02/21					JOB NUMBER 19Y007				
Checked By	Barkley, J 01/22					CONTRACT NO.				
Detailed By	Uhde, T 02/21									
Bridge Projects Engr.										
Prelim. Plan By										
Architect/Specialist		DATE	REVISION	BY	APP'D					

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P.E. STAMP BOX — BIJAN KHALEGHI — STATE OF WASHINGTON — 37605 — STRUCTURAL ENGINEER — PROFESSIONAL ENGINEER — SEE SHEET CT9 — DATE

Washington State Department of Transportation

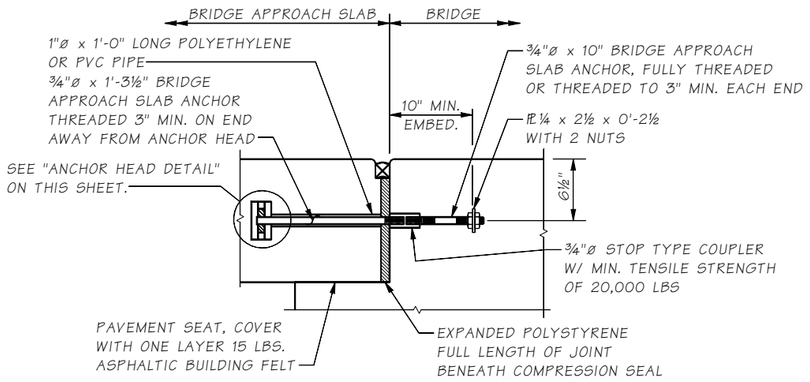
I-90
CABIN CR I/C TO W EASTON I/C PHASE 3
ADD LANES / WILDLIFE BRIDGES
SPARKS RD BRIDGE WB NO. 90/117N

APPROACH SLAB DETAILS 2 OF 3

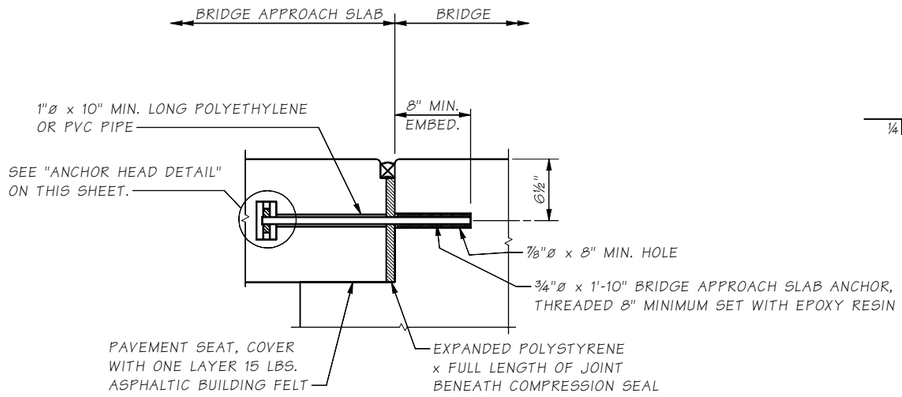
BRIDGE SHEET NO. BL23

SHEET 1644 OF 1783 SHEETS

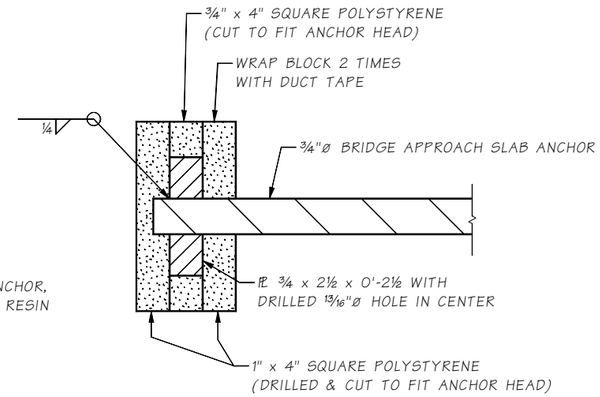
Mon Feb 07 12:12:32 2022



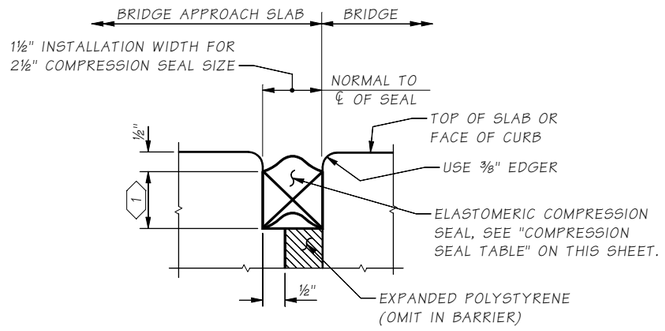
APPROACH EXPANSION ANCHOR - METHOD A



APPROACH EXPANSION ANCHOR - METHOD B

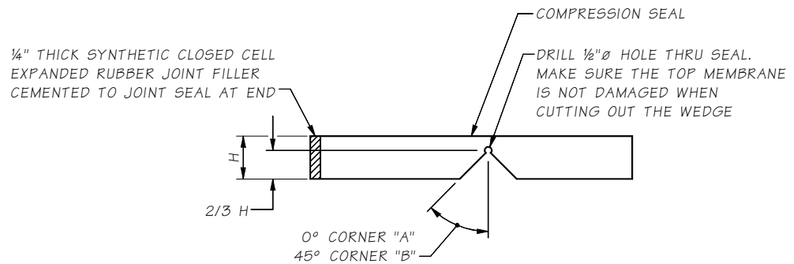


ANCHOR HEAD DETAIL



COMPRESSION SEAL DETAIL

EXPANSION JOINT AT BACK OF PAVEMENT SEAT

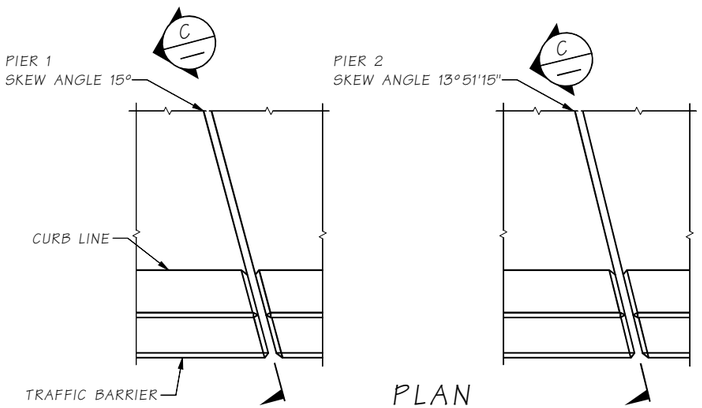


SEAL CUTTING DETAIL

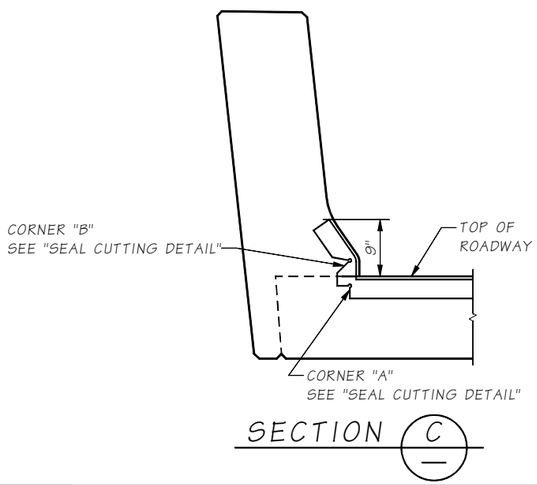
COMPRESSION SEAL TABLE

D.S. BROWN		WATSON BOWMAN ACME	
SEAL	WIDTH	SEAL	WIDTH
CV-2502	2½	WA-250	2½

TESTING SHALL BE PER ASTM D 2628 PRIOR TO USE.



PLAN
EXPANSION JOINT



SECTION C

GENERAL NOTES:

1. ALL METAL PARTS OF THE APPROACH EXPANSION ANCHOR SHALL RECEIVE ONE COAT OF PAINT CONFORMING TO STANDARD SPECIFICATION SECTION 9-08.1(2)F OR BE GALVANIZED IN ACCORDANCE WITH AASHTO M 232.
2. BRIDGE APPROACH SLAB ANCHORS SHALL BE INSTALLED PARALLEL TO ROADWAY AND TO EACH OTHER.

NOTES:

1 FULLY COMPRESSED SEAL HEIGHT, SEAL HEIGHT VARIES WITH MANUFACTURER, VERIFY PRIOR TO SLAB CONSTRUCTION

SR I-90 FILE NO. SHEET BL24

Bridge Design Engr.	Khaleghi, B		M:\Z-Team\I-90 PHASE 3 SPARKS RD WB\window files\APPROACH SLAB DET 3.wnd				REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor	Zeldenrust, RP						10	WASH.			
Designed By	Liu, S	02/21					JOB NUMBER 19Y007				
Checked By	Barkley, J	01/22					CONTRACT NO.				
Detailed By	Uhde, T	02/21									
Bridge Projects Engr.											
Prelim. Plan By											
Architect/Specialist			DATE	REVISION	BY	APP'D					

P.E. STAMP BOX: RICHARD P. ZELDENRUST, STATE OF WASHINGTON, 25470, PROFESSIONAL ENGINEER — SEE SHEET CT9 — DATE

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX: BIJAN KHALEGHI, STATE OF WASHINGTON, 37695, PROFESSIONAL ENGINEER — SEE SHEET CT9 — DATE

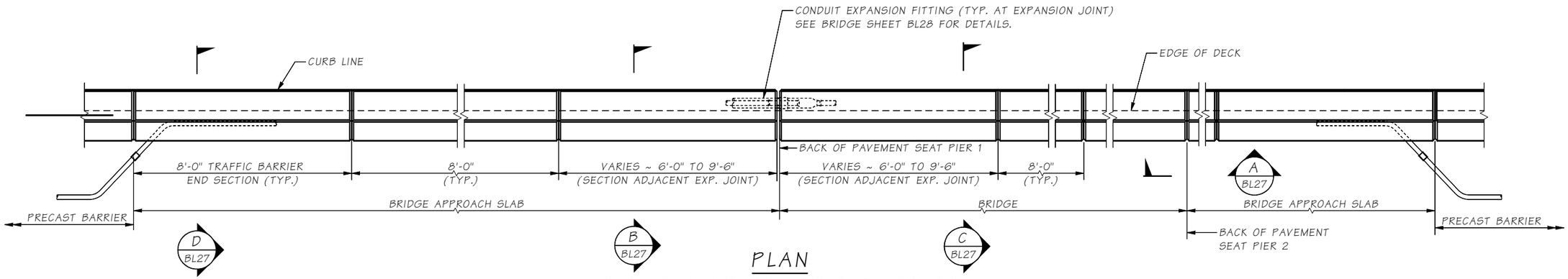
Washington State Department of Transportation

I-90
CABIN CR I/C TO W EASTON I/C PHASE 3 ADD LANES / WILDLIFE BRIDGES
SPARKS RD BRIDGE WB NO. 90/117N

APPROACH SLAB DETAILS 3 OF 3

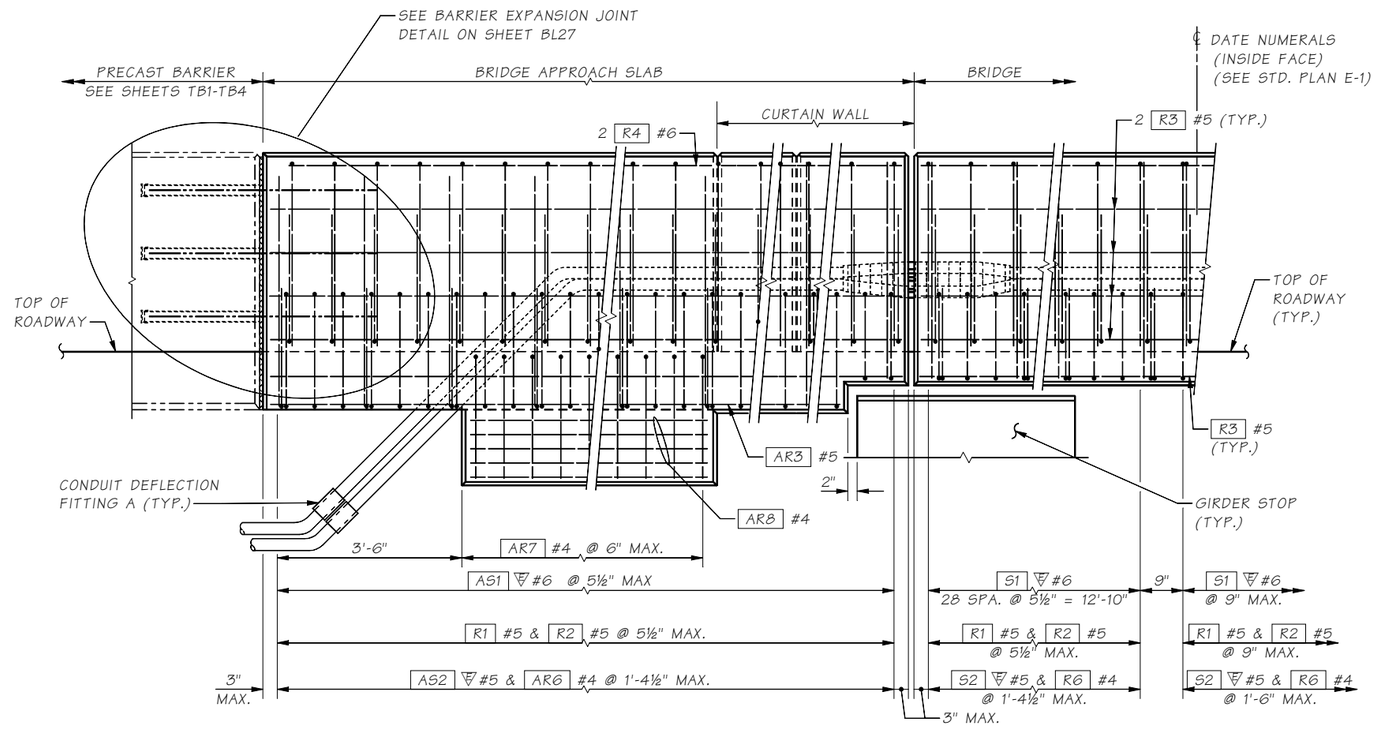
BRIDGE SHEET NO. BL24
SHEET 1645 OF 1783 SHEETS

Mon Feb 07 12:12:32 2022



PLAN
RIGHT SIDE TRAFFIC BARRIER

BARRIER CONTINUOUS BETWEEN ROADWAY EXPANSION JOINTS.
CONSTRUCTION JOINTS WITH SHEAR KEYS ARE PERMISSIBLE AT DUMMY JOINT LOCATIONS.
FORM JOINTS BETWEEN DUMMY JOINTS SHALL NOT BE PERMITTED.



OUTSIDE ELEVATION
LEFT SIDE TRAFFIC BARRIER

SHOWN WITH BRIDGE APPROACH SLAB

SR I-90 FILE NO. ____ SHEET BL25

Bridge Design Engr.	Khaleghi, B	M:\Z-Team\I-90 PHASE 3 SPARKS RD WB\window files\TRAFFIC BARRIER DETAIL 1.wnd				REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor	Zeldenrust, RP					10	WASH.			
Designed By	Barkley, J 02/22					JOB NUMBER 19Y007				
Checked By	Barkley, J 01/22					CONTRACT NO.				
Detailed By	Uhde, T 02/22									
Bridge Projects Engr.										
Prelim. Plan By										
Architect/Specialist		DATE	REVISION	BY	APP'D					

P.E. STAMP BOX
RICHARD P. ZELDENRUST — STATE OF WASHINGTON — 23970 — PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX
BIJAN KHALEGHI — STATE OF WASHINGTON — 37695 — PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE

Washington State Department of Transportation

I-90
CABIN CR I/C TO W EASTON I/C PHASE 3
ADD LANES / WILDLIFE BRIDGES
SPARKS RD BRIDGE WB NO. 90/117N

TRAFFIC BARRIER DETAILS 1 OF 4

BRIDGE SHEET NO. BL25
SHEET 1646 OF 1783 SHEETS

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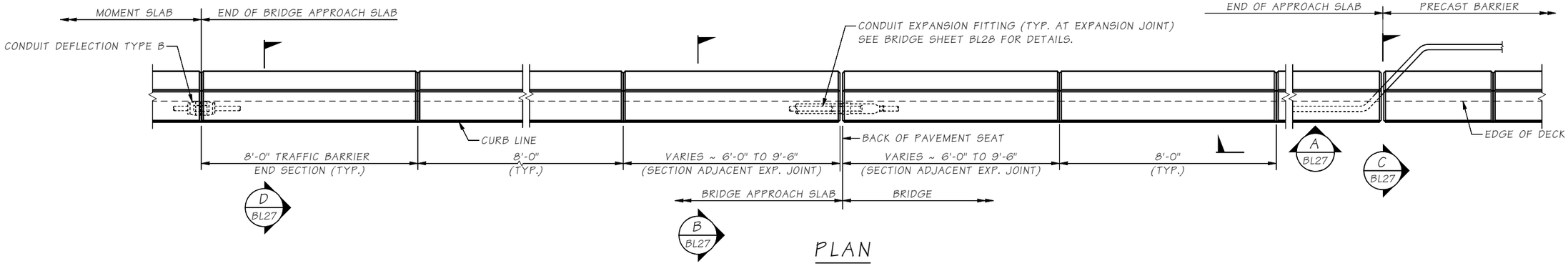
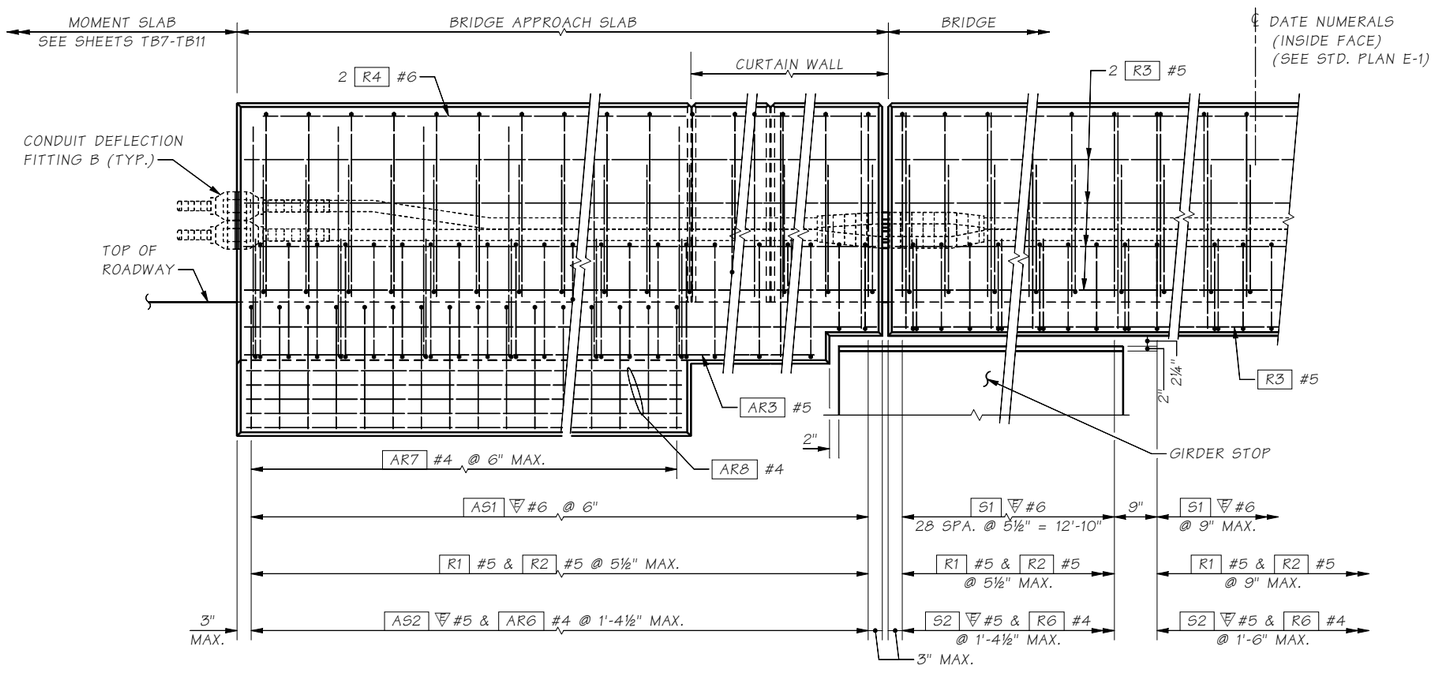


PLAN
LEFT SIDE TRAFFIC BARRIER

BARRIER CONTINUOUS BETWEEN ROADWAY EXPANSION JOINTS.
CONSTRUCTION JOINTS WITH SHEAR KEYS ARE PERMISSIBLE AT DUMMY JOINT LOCATIONS.
FORM JOINTS BETWEEN DUMMY JOINTS SHALL NOT BE PERMITTED.

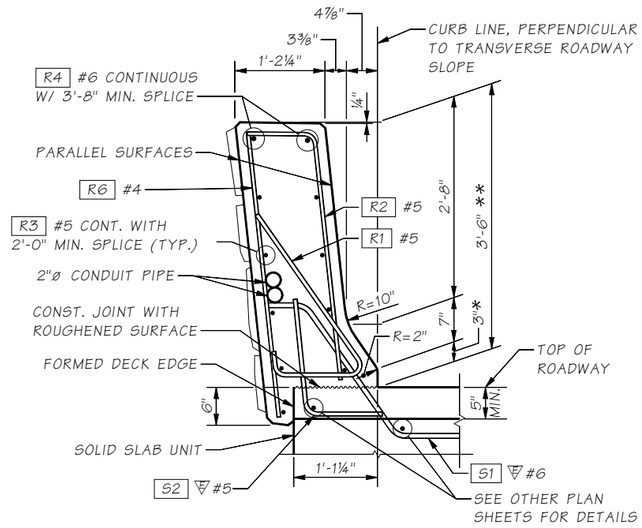


OUTSIDE ELEVATION
END OF TRAFFIC BARRIER

SHOWN WITH BRIDGE APPROACH SLAB

* TOE HEIGHT MAY VARY, 2" MIN TO 6" MAX.

** HEIGHT MAY VARY IF REQUIRED TO PROVIDE A PROFILE PLEASING TO THE EYE.



TYPICAL SECTION
TRAFFIC BARRIER

SHOWN ON BRIDGE

SR I-90 FILE NO. SHEET BL26

Bridge Design Engr.	Khaleghi, B	M:\Z-Team\I-90 PHASE 3 SPARKS RD WB\window files\TRAFFIC BARRIER DET 1.wnd			REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor	Zeldenrust, RP				10	WASH.			
Designed By	Liu, S 02/21				JOB NUMBER 19Y007				
Checked By	Barkley, J 01/22				CONTRACT NO.				
Detailed By	Uhde, T 02/21								
Bridge Projects Engr.									
Prelim. Plan By									
Architect/Specialist		DATE	REVISION	BY	APP'D				

P.E. STAMP BOX — RICHARD P. ZELDENRUST — STATE OF WASHINGTON — 26470 — PROFESSIONAL ENGINEER — STRUCTURAL ENGINEER — SEE SHEET CT9 DATE

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX — BIJAN KHALEGHI — STATE OF WASHINGTON — 37906 — PROFESSIONAL ENGINEER — STRUCTURAL ENGINEER — SEE SHEET CT9 DATE

Washington State Department of Transportation

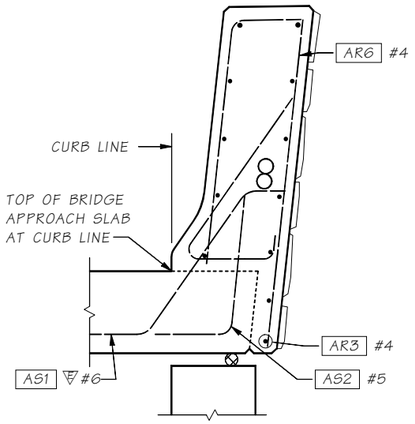
I-90
CABIN CR I/C TO W EASTON I/C PHASE 3
ADD LANES / WILDLIFE BRIDGES
SPARKS RD BRIDGE WB NO. 90/117N

TRAFFIC BARRIER - SHAPE F 42 IN.
DETAILS 2 OF 4

BRIDGE SHEET NO. BL26

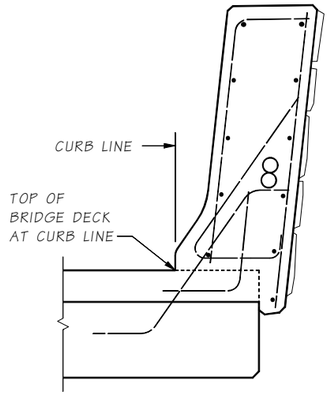
SHEET 1647 OF 1783 SHEETS

Mon Feb 07 12:12:32 2022



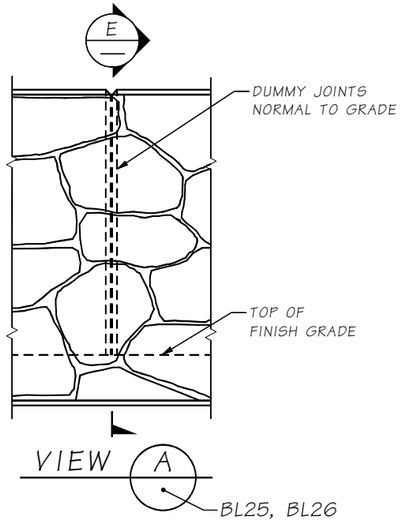
SECTION B APPROACH SLAB AT CURTAIN WALL
BL25, BL26

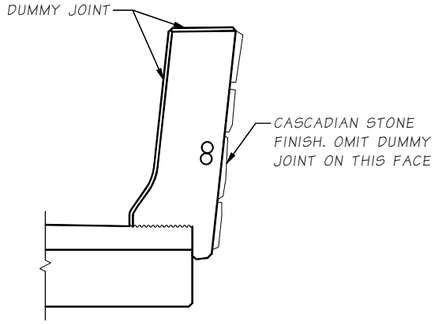
FOR DETAILS NOT SHOWN SEE "OUTSIDE ELEVATION" AND "TYPICAL SECTION - TRAFFIC BARRIER"



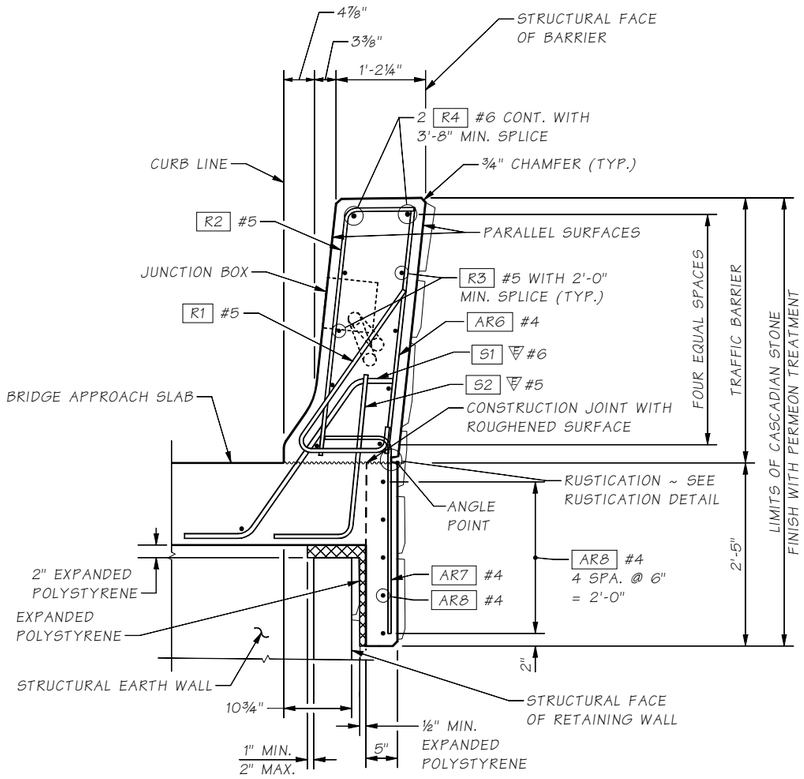
SECTION C BRIDGE
BL25, BL26

FOR DETAILS NOT SHOWN SEE "OUTSIDE ELEVATION" AND "TYPICAL SECTION - TRAFFIC BARRIER"





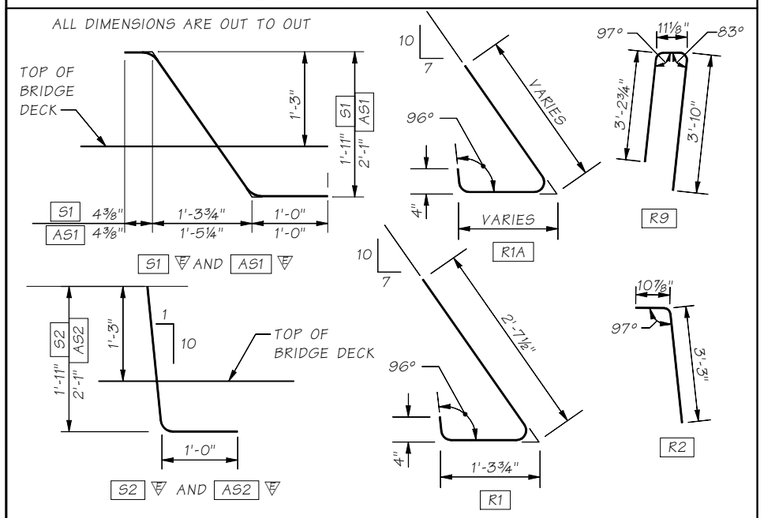
SECTION E



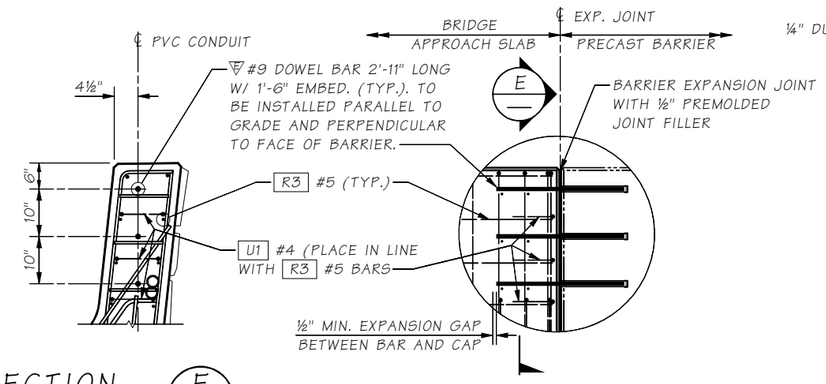
SECTION D APPROACH SLAB AT RETAINING WALL
BL25

BENDING DIAGRAM

ALL DIMENSIONS ARE OUT TO OUT



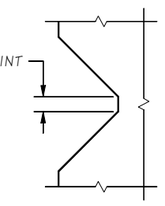
FOR W1 & W2 BARS SEE WINGWALL OR RETAINING WALL PLANS.



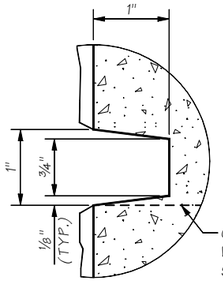
SECTION E

FOR DETAILS NOT SHOWN SEE TYPICAL SECTION. CONDUIT DEFLECTION FITING NOT SHOWN FOR CLARITY.

BARRIER EXPANSION JOINT DETAIL



DUMMY JOINT DETAIL



RUSTICATION DETAIL

NOTES:

1. BLOCKOUT WIDTH MAY BE INCREASED TO 6" TO ALLOW CONDUITS OF A LARGER DIAMETER THAN 2" TO EXIT BARRIER OR WALL WITHOUT REBAR STEEL CONFLICT
2. THE CONTRACTOR IS ADVISED THAT THE SLIPFORM CONSTRUCTION METHOD IS A PATENTED PROPRIETARY PROCESS FOR BARRIERS WITH A FRACTURED FIN FINISH.

Bridge Design Engr.	Khaleghi, B	M:\Z-Team\I-90 PHASE 3 SPARKS RD WB\window files\TRAFFIC BARRIER DET 2.wnd							
Supervisor	Zeldenrust, RP								
Designed By	Liu, S 02/21								
Checked By	Barkley, J 01/22								
Detailed By	Uhde, T 02/21								
Bridge Projects Engr.									
Prelim. Plan By									
Architect/Specialist		DATE	REVISION	BY	APP'D				

REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
10	WASH.			
JOB NUMBER 19Y007				
CONTRACT NO.				

P.E. STAMP BOX
RICHARD P. ZELDENRUST — STATE OF WASHINGTON — 20476 — STRUCTURAL ENGINEER — PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE:

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX
BIJAN KHALEGHI — STATE OF WASHINGTON — 27695 — STRUCTURAL ENGINEER — PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE:

Washington State Department of Transportation

I-90
CABIN CR I/C TO W EASTON I/C PHASE 3 ADD LANES / WILDLIFE BRIDGES
SPARKS RD BRIDGE WB NO. 90/117N

TRAFFIC BARRIER - SHAPE F 42 IN. DETAILS 3 OF 4

BRIDGE SHEET NO. BL27

SHEET 1648 OF 1783 SHEETS

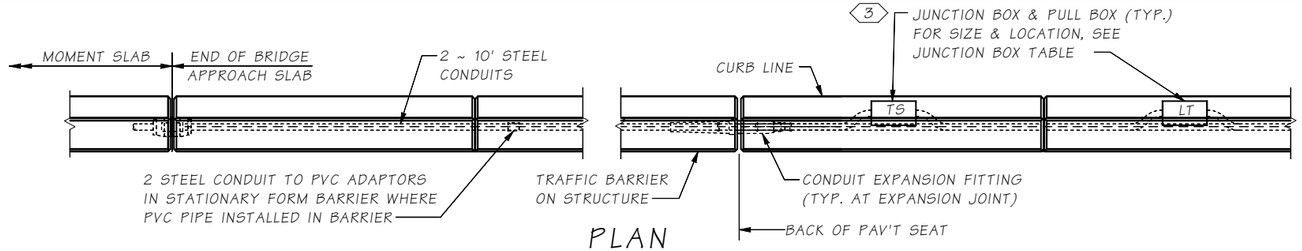
SR I-90 FILE NO. SHEET BL27

Mon Feb 07 12:12:33 2022

JUNCTION BOX LOCATIONS

STATION	OFFSET	"TS" OR "LT"
1931+35.04	RT	TS
1931+42.97	RT	LT
1932+29.71	LT	TS
1932+30.12	RT	TS
1932+37.80	LT	LT
1932+38.05	RT	LT

TS = TRAFFIC SYSTEM
LT = LIGHTING SYSTEM ⟨1⟩ ⟨2⟩



PLAN
TRAFFIC BARRIER

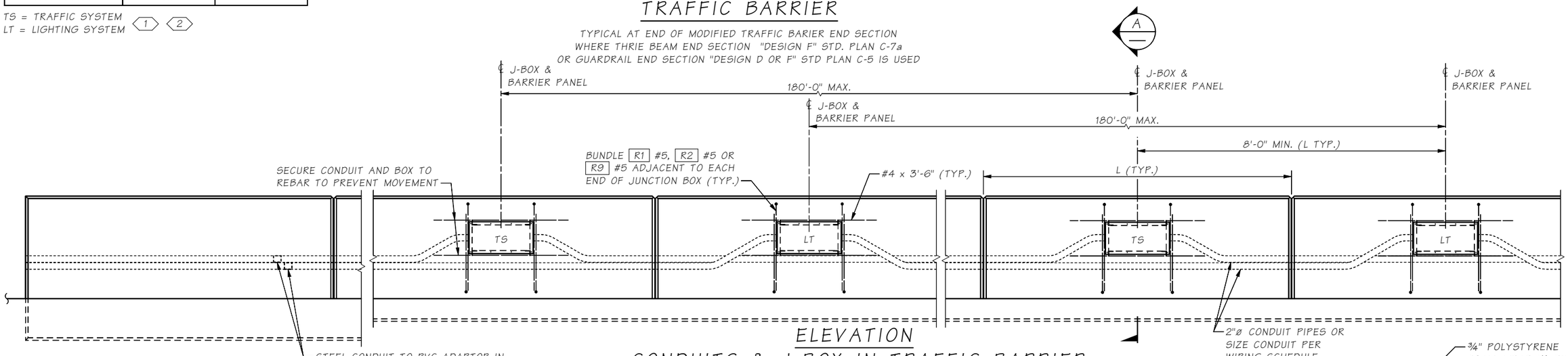
NOTES:

⟨1⟩ JUNCTION BOX LOCATIONS SHOWN ARE APPROXIMATE. CENTER JUNCTION BOX INSTALLATION BETWEEN BARRIER DUMMY JOINTS.

⟨2⟩ INSTALL ALL CONDUIT RUNS TO DRAIN TO A BRIDGE END OR PROVIDE DRAIN AT ALL LOW POINTS IN CONDUIT RUN ON BRIDGE.

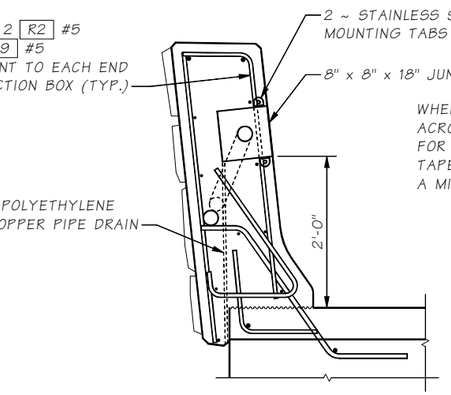
⟨3⟩ NEMA 4X IN STATIONARY FORM BARRIER, OR NEMA 3R IN SLIP FORM BARRIER. MOUNT JUNCTION BOX SO COVER IS FLUSH WITH BARRIER, CAN BE RECESSED UP TO ⅛".

TYPICAL AT END OF MODIFIED TRAFFIC BARIER END SECTION WHERE THRIE BEAM END SECTION "DESIGN F" STD. PLAN C-7a OR GUARDRAIL END SECTION "DESIGN D OR F" STD PLAN C-5 IS USED

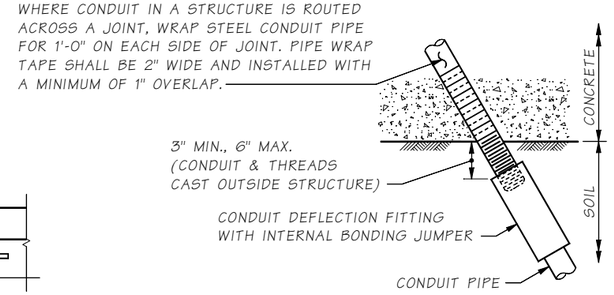


ELEVATION
CONDUITS & J-BOX IN TRAFFIC BARRIER

LABEL JUNCTION BOX COVER IN ACCORDANCE WITH STANDARD SPECIFICATION 9-29.2(4). ADJACENT JUNCTION BOXES ARE SHOWN CENTERED BETWEEN ADJACENT DUMMY JOINTS. IF THE DISTANCE BETWEEN ADJACENT DUMMY JOINTS IS 16'-0" OR GREATER, PLACE ADJACENT JUNCTION BOXES SYMMETRICALLY ON EITHER SIDE OF THE CENTER OF ONE DUMMY PANEL WHILE MAINTAINING 8'-0" MINIMUM BETWEEN CENTER LINES OF THE JUNCTION BOXES.

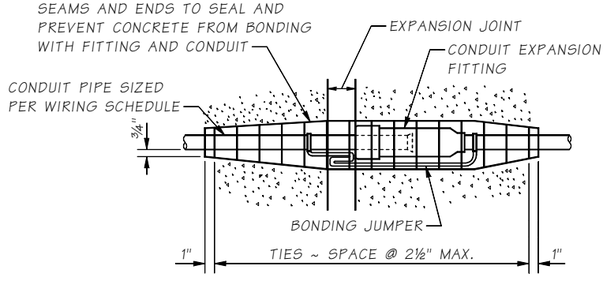


SECTION A



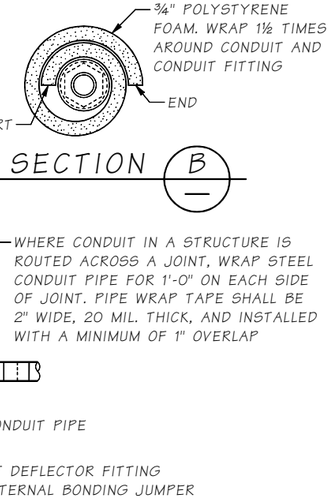
CONDUIT DEFLECTION FITTING A

CONDUIT FITTING - TYPE DX FOR DEFLECTION OF 30° AND ¾" MOVEMENT. PLACE AT CONDUIT PIPE EXIT FROM STRUCTURE.



CONDUIT EXPANSION FITTING

CONDUIT FITTING - (TYPE AX FOR MOVEMENT OF ± 2") AT BRIDGE EXPANSION JOINTS



CONDUIT DEFLECTION FITTING B

CONDUIT FITTING - TYPE DX FOR DEFLECTION OF 30° AND ¾" MOVEMENT. CONDUIT PIPES PLACED THROUGH RETAINING WALL TRAFFIC BARRIER SHALL BE FITTED WITH DEFLECTION FITTINGS AT A MAXIMUM SPACING OF 120'. THE DEFLECTION FITTINGS SHALL BE PLACED AT THE TRAFFIC BARRIER OPEN JOINT THAT COINCIDES WITH THE RETAINING WALL EXPANSION JOINT.

SR I-90 FILE NO. ____ SHEET BL28

Bridge Design Engr.	Khaleghi, B	M:\Z-Team\I-90 PHASE 3 SPARKS RD WB\window files\TRAFFIC BARRIER DET 3.wnd				REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor	Zeldenrust, RP					10	WASH.			
Designed By	Liu, S 02/21					JOB NUMBER 19Y007				
Checked By	Barkley, J 01/22					CONTRACT NO.				
Detailed By	Uhde, T 02/21									
Bridge Projects Engr.										
Prelim. Plan By										
Architect/Specialist		DATE	REVISION	BY	APP'D					

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P.E. STAMP BOX
RICHARD P. ZELDENRUST — STATE OF WASHINGTON — 22470 — PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE

BRIDGE AND STRUCTURES OFFICE

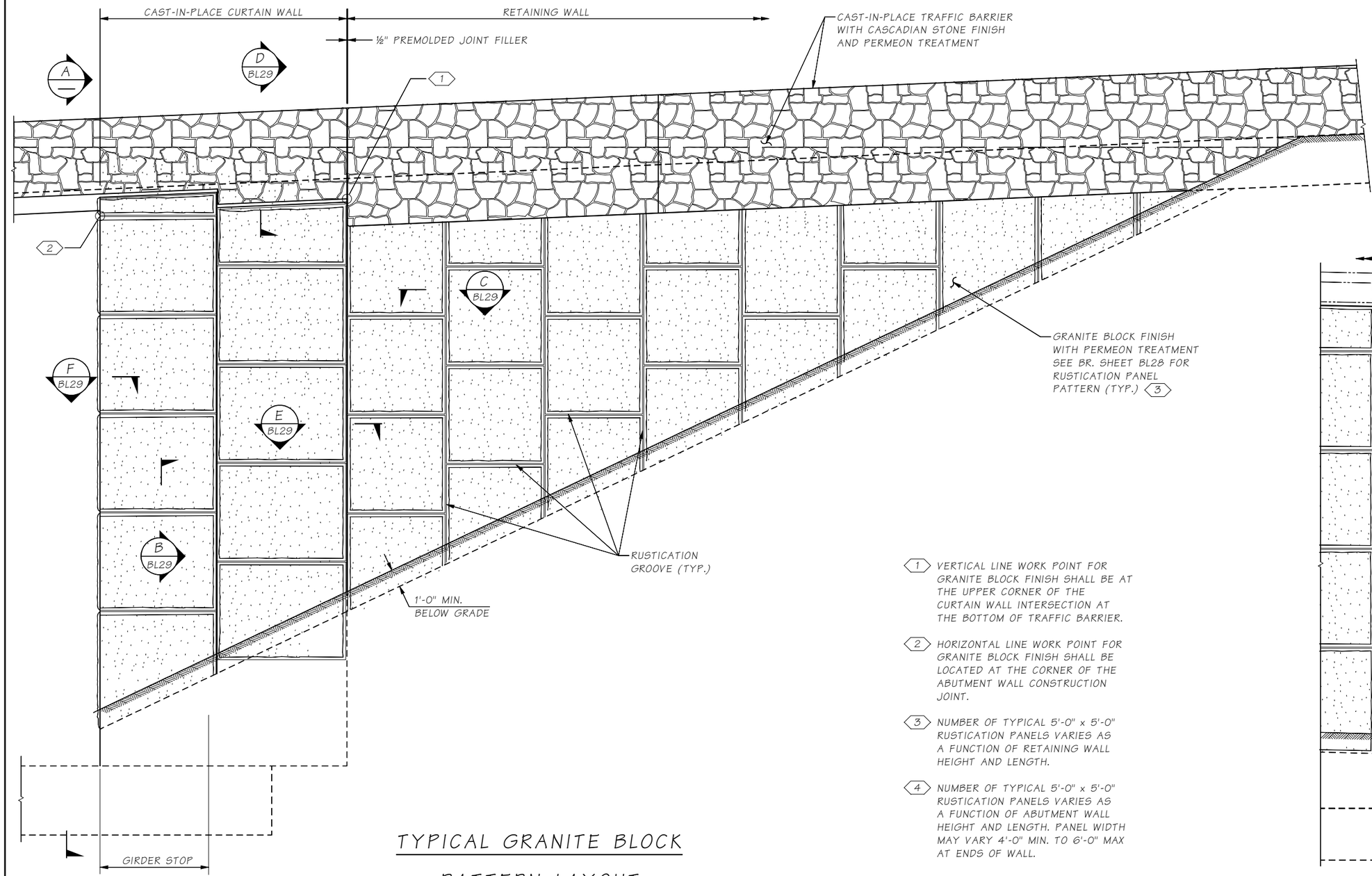
P.E. STAMP BOX
BIJAN KHALEGHI — STATE OF WASHINGTON — 27695 — PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE

Washington State Department of Transportation

I-90
CABIN CR I/C TO W EASTON I/C PHASE 3
ADD LANES / WILDLIFE BRIDGES
SPARKS RD BRIDGE WB NO. 90/117N

TRAFFIC BARRIER - SHAPE F 42 IN.
DETAILS 4 OF 4

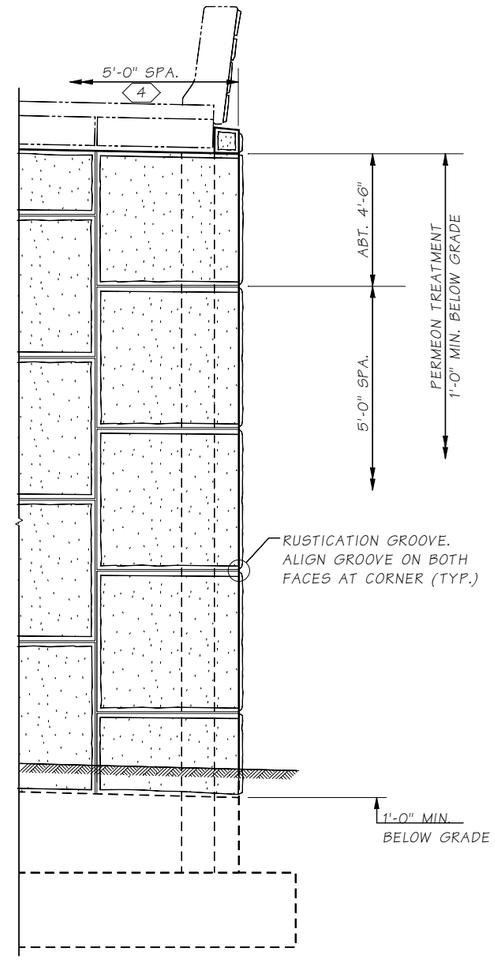
BRIDGE SHEET NO. BL28
SHEET 1649 OF 1783 SHEETS



TYPICAL GRANITE BLOCK PATTERN LAYOUT

SHOWING CAST-IN-PLACE ABUTMENT, CURTAIN WALL AND STRUCTUAL EARTH RETAINING WALL

1. VERTICAL LINE WORK POINT FOR GRANITE BLOCK FINISH SHALL BE AT THE UPPER CORNER OF THE CURTAIN WALL INTERSECTION AT THE BOTTOM OF TRAFFIC BARRIER.
2. HORIZONTAL LINE WORK POINT FOR GRANITE BLOCK FINISH SHALL BE LOCATED AT THE CORNER OF THE ABUTMENT WALL CONSTRUCTION JOINT.
3. NUMBER OF TYPICAL 5'-0" x 5'-0" RUSTICATION PANELS VARIES AS A FUNCTION OF RETAINING WALL HEIGHT AND LENGTH.
4. NUMBER OF TYPICAL 5'-0" x 5'-0" RUSTICATION PANELS VARIES AS A FUNCTION OF ABUTMENT WALL HEIGHT AND LENGTH. PANEL WIDTH MAY VARY 4'-0" MIN. TO 6'-0" MAX AT ENDS OF WALL.



VIEW A —

SR I-90 FILE NO. SHEET BL29

Bridge Design Engr.	Khaleghi, B	M:\Z-Team\I-90 PHASE 3 SPARKS RD WB\window files\ARCHITECT DETS 1.wnd			REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor	Zeldenrust, RP				10	WASH.			
Designed By	Rochon, MJ 01/22				JOB NUMBER 19Y007				
Checked By	Barkley, J 01/22				CONTRACT NO.				
Detailed By	Rochon, MJ 01/22								
Bridge Projects Engr.									
Prelim. Plan By									
Architect/Specialist		DATE	REVISION	BY	APP'D				

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P.E. STAMP BOX — MATTHEW J. ROCHON, STATE OF WASHINGTON, 40414, REGISTERED PROFESSIONAL ENGINEER — SEE SHEET CT9 — DATE

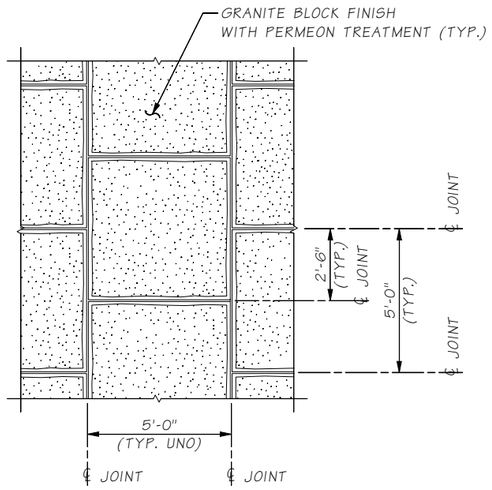
Washington State Department of Transportation

I-90
CABIN CR I/C TO W EASTON I/C PHASE 3
ADD LANES / WILDLIFE BRIDGES
SPARKS RD BRIDGE WB NO. 90/117N

ARCHITECTURE DETAILS 1 OF 2

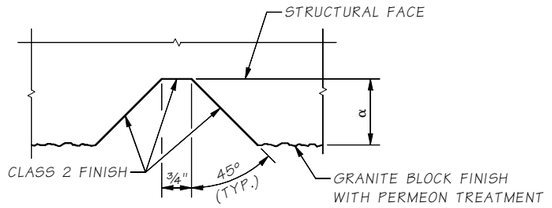
BRIDGE SHEET NO. BL29

SHEET 1650 OF 1783 SHEETS



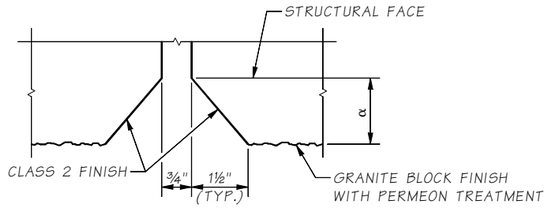
RUSTICATION PANEL PATTERN

TYPICAL FOR S.E.W. PRECAST PANELS.
CAST-IN-PLACE CURTAIN WALL SIMILAR.



SECTION B
BL28

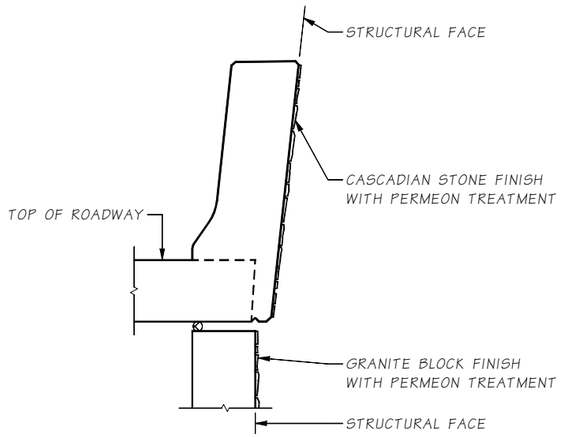
CAST-IN-PLACE RUSTICATION
GROOVE TYPICAL FOR VERTICAL
AND HORIZONTAL APPLICATIONS



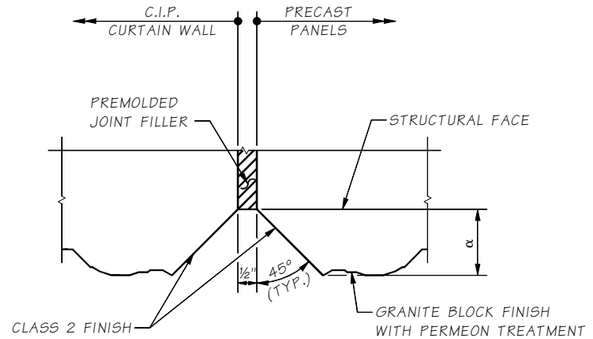
SECTION C
BL28

PRECAST RUSTICATION GROOVE
TYPICAL FOR VERTICAL
AND HORIZONTAL APPLICATIONS

α CONCRETE SURFACE VARIES
IN DEPTH DEPENDING ON
FORMLINER MANUFACTURERS
AMPLITUDE ± APPROXIMATELY 1¾"

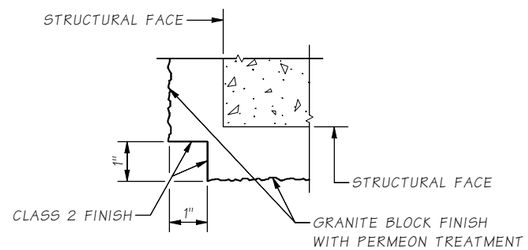


SECTION D
BL28



SECTION E
BL28

CAST-IN-PLACE & PRECAST
CORNER GROOVE



SECTION F
BL28

CAST-IN-PLACE
CORNER GROOVE

SR I-90 FILE NO. ____ SHEET BL30

Bridge Design Engr.	Khaleghi, B		M:\Z-Team\I-90 PHASE 3 SPARKS RD WB\window files\ARCHITECT DETS 2.wnd				REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor	Zeldenrust, RP						10	WASH.			
Designed By	Rochon, MJ	01/22					JOB NUMBER 19Y007				
Checked By	Barkley, J	01/22					CONTRACT NO.				
Detailed By	Rochon, MJ	01/22									
Bridge Projects Engr.											
Prelim. Plan By											
Architect/Specialist			DATE	REVISION	BY	APP'D					

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BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX
MATTHEW J. ROCHON
STATE OF WASHINGTON
60414
REGISTERED
PROFESSIONAL ENGINEER
SEE SHEET CT9
DATE

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I-90
CABIN CR I/C TO W EASTON I/C PHASE 3
ADD LANES / WILDLIFE BRIDGES
SPARKS RD BRIDGE WB NO. 90/117N

ARCHITECTURE DETAILS
2 OF 2

BRIDGE SHEET NO. BL30
SHEET 1651 OF 1783 SHEETS

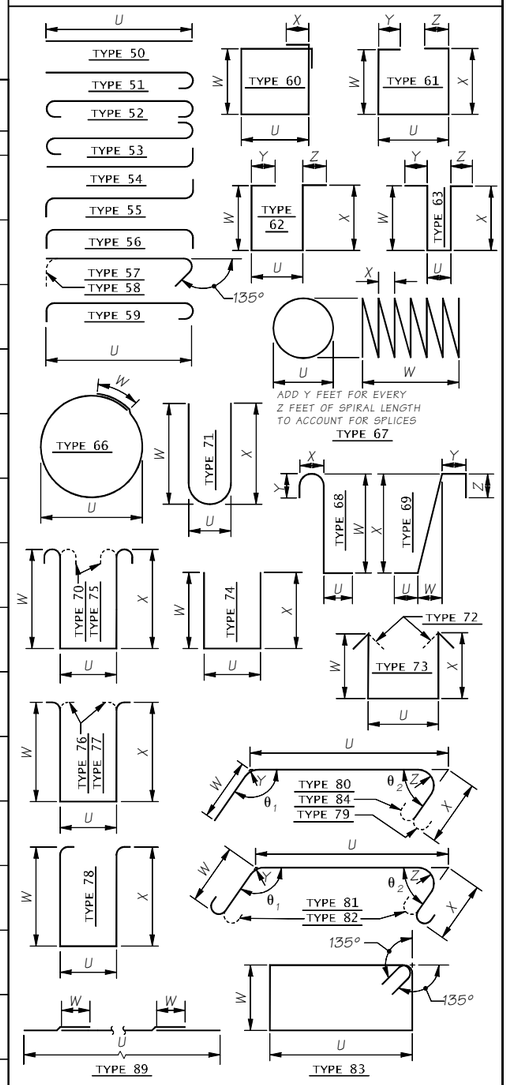
S = Bar is included in substructure quantities.
L = Lump sum quantity.
T = Transverse or S = Seismic
E = Bar is to be epoxy coated.
V = Bar dimensions vary between dimensions shown on this line and the following line.

MARK NO.	LOCATION	SIZE	NO REQ'D	BEND TYPE	TIE OR STIR.	LUMP SUM	SUBSTR.	EPOXY COAT	VARIES	NO. EACH	DIMENSIONS (Out to Out) U Ft.	U In.	W Ft.	W In.	X Ft.	X In.	Y Ft.	Y In.	Z Ft.	Z In.	θ_1 Deg.	θ_2 Deg.	LENGTH Ft.	LENGTH In.	WEIGHT Lbs.
	PIER 1 SPREAD FOOTING																								
101	Top Mat Transverse	7	72	50		S					17	6.0											17	6	2575
102	Bottom Mat Transverse	10	144	50		S					17	6.0											17	6	10844
103	Top Mat Longitudianal	6	19	89		S					71	6.0	3	2.0									74	8	2131
104	Bottom Mat Longitudinal	6	19	89		S					71	6.0	3	2.0									74	8	2131
105	Stirrup	4	438	58	T	S					3	0.0											3	8	1071
	ABUTMENT WALL PIER 1																								
106	Abut. Wall Horiz. GR1	6	53	89		S					69	11.0	3	2.0									73	1	5818
106	Abut. Wall Horiz. GR2	6	8	89		S			V	2	62	6.0	3	2.0									65	8	465
											11	9.0	3	2.0									11	9	
107	Abut. Wall Vert. N.F.	6	68	54		S			V	1	31	10.0											32	8	3129
											27	9.0											28	7	
108	Abut. Wall Vert. F.F.	10	137	54		S			V	1	31	10.0											33	4	18440
											27	9.0											29	3	
109	Top Face Ties	5	68	56	T	S					2	8.0											3	5	240
111	Abutment Wall Ties	4	240	58	T	S					2	9.0											3	5	547
112	Abut Wall To Curt Wall FF	6	26	80		S					6	0.0	1	0.0	0	0.0	0	3.0	0	0.0	105	0	6	11	270
113	Abut Wall End Face	6	30	56		S					2	8.0											4	4	196
	N.W. CURTAIN WALL																								
01	Underdrain Blockout	4	4	50		S					2	9.0											2	9	7
115	F.F. Dowels	8	10	54		S					7	6.0											8	7	230
116	F.F. Vertical	8	13	50		S			V	1	26	9.0											26	9	892
											24	8.0											24	8	
117	N.F. Dowels	5	13	54		S					5	6.0											6	2	84
118	N.F. Verticals	5	16	50		S			V	1	26	9.0											26	9	428
											24	7.0											24	7	
119	F.F. Horizontals	8	50	80		S					12	1.0	1	4.0	0	0.0	0	4.0	0	0.0	75	0	13	1	1746
120	N.F. Horizontals	5	25	50		S					12	1.0											12	1	315
121	Stirrup	5	25	76		S					5	1.0	2	0.0	2	2.0							10	5	271
122	Top Horizontal	5	4	50		S					6	7.0											6	7	27
	GIRDER STOPS PIER 1																								
123	Right Side Stirrups	5	11	74							0	8.0	3	2.0	3	2.0							6	9	77
124	Right Side Longt.	4	6	56							5	2.0											5	3	25
125	Left Side Stirrups	5	5	74							2	8.0	3	4.0	3	4.0							9	1	47
126	Right Side Longt.	4	7	50							2	3.0											2	3	11
	PIER 2 SPREAD FOOTING																								
201	Top Mat Transverse	7	73	50		S					17	6.0											17	6	2611
202	Bottom Mat Transverse	10	144	50		S					17	6.0											17	6	10844
203	Top Mat Longitudinal	6	19	89		S					71	6.0	3	2.0									74	8	2131
204	Bottom Mat Longitudinal	6	19	89		S					71	6.0	3	2.0									74	8	2131
205	Stirrup	4	438	52		S					3	0.0											3	12	1170
	ABUTMENT WALL PIER 2																								
206	Abut. Wall Horiz. GR1	6	47	89		S					61	1.0	3	2.0									64	3	4536
206	Abut. Wall Horiz. GR2	6	8	89		S			V	2	62	6.0	3	2.0									65	8	465
											11	9.0	3	2.0									11	9	
207	Abut. Wall Vert. N.F.	6	68	54		S			V	1	29	6.0											30	4	2903
											25	8.0											26	6	
208	Abut. Wall Vert. F.F.	10	135	54		S			V	1	29	6.0											30	12	16888
											25	8.0											27	2	
209	Top Face Ties	5	68	56	T	S					2	8.0											3	5	240
211	Abutment Wall Ties	4	240	58	T	S					2	9.0											3	5	547
212	Abut Wall to Curt Wall FF	6	23	80	T	S					6	0.0	1	0.0	0	0.0	0	3.0	0	0.0	75	0	6	9	233
213	Abut Wall End Face	6	27	56	T	S					2	8.0											4	4	177
	N.E. CURTAIN WALL																								
02	Underdrain Blockout	4	4	50		S					2	9.0											2	9	7
215	F.F. Dowels	8	10	54		S					7	6.0											8	7	230
216	F.F. Vertical	8	13	50		S			V	1	23	9.0											23	9	801
											22	5.0											22	5	
217	N.F. Dowels	5	13	54		S					5	6.0											6	2	84
218	N.F. Verticals	5	17	50		S			V	1	23	9.0											23	9	409
											22	5.0											22	5	
219	F.F. Horizontals	8	46	80		S					12	9.0	1	4.0	0	0.0	0	4.0	0	0.0	105	0	13	11	1714
220	N.F. Horizontals	5	23	50		S					12	2.0											12	2	292
221	Stirrup	5	23	76		S					5	7.0	2	0.0	2	0.0							10	9	257
222	Top Horizontal	5	4	50		S					6	10.0											6	10	29
	GIRDER STOPS PIER 2																								
223	Right Side Stirrups	5	11	74							0	8.0	3	2.0	3	2.0							6	9	77
224	Right Side Longt.	4	6	56							5	2.0											6	3	25
225	Left Side Stirrups	5	5	74							2	8.0	3	4.0	3	4.0							9	1	47
226	Right Side Longt.	4	7	50							2	3.0											2	3	11
	END DIAPHRAGM PIERS 1 & 2																								
301	Stirrup	4	236	58	T						3	0.0											3	8	577
302	Stirrup	4	118	61	T						1	9.0	2	0.0	0	0.0	0	5.0	0	0.0			3	12	315
303	Top Ties	4	118	58	T						1	9.0											2	5	190
304	Top and Middle Logitudinal	4	14	89			E				58	0.0	2	0.0									60	0	561
306	Deck longitudinal	6	4	89							58	0.0	3	0.0									58	0	348
307	Bot. Longitudinal	6	4	89							58	0.0	2	2.0									58	0	348
	BRIDGE DECK																								
401	Longitudinal	4	65	89			E		V	1	59	6.0	2	0.0									61	6	2670
											59	6.0	2	0.0									61	6	
403	Transverse	5	119	50	T		E				58	6.0											58	6	7261

STEEL REINFORCING BAR QUANTITIES NOT INCLUDED IN THIS BAR LIST

TRAFFIC BARRIER
BRIDGE GRATE INLETS
RETAINING WALL

BENDING DIAGRAMS



NOTES:

1. ALL REINFORCING BARS ON THIS SHEET SHALL BE ASTM A 706 UNLESS SHOWN OTHERWISE.
2. REINFORCING FOR TRAFFIC BARRIERS NOT SHOWN IN THE BAR LIST, SEE TRAFFIC BARRIER SHEET.
3. BEND FOR TRANSVERSE BARS DUE TO ROADWAY CROWN CONDITIONS HAS NOT BEEN SHOWN. THESE BARS SHALL BE BENT AS REQUIRED TO CONFORM TO THE CONFIGURATION OF THE STRUCTURE.
4. NUMBER AND LENGTH OF BARS TO BE DETERMINED BY THE CONTRACTOR FROM PLANS.

SR I-90 FILE NO. SHEET BL31

Bridge Design Engr.	Khaleghi, B	M:\Z-Team\I-90 PHASE 3 SPARKS RD WB\window files\BARLIST.wnd	
Supervisor	Zeldenrust, RP		
Designed By	Liu, S 10/21		
Checked By	Barkley, J 01/22		
Detailed By	Uhde, T 10/21		
Bridge Projects Engr.			
Prelim. Plan By			
Architect/Specialist		DATE REVISION BY APP'D	

REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
10	WASH.			
JOB NUMBER 19Y007				
CONTRACT NO.				

P.E. STAMP BOX — SEE SHEET CT9 — DATE

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX — SEE SHEET CT9 — DATE

Washington State Department of Transportation

I-90
CABIN CR I/C TO W EASTON I/C PHASE 3 ADD LANES / WILDLIFE BRIDGES
SPARKS RD BRIDGE WB NO. 90/117N

BARLIST

BRIDGE SHEET NO. BL31

SHEET 1652 OF 1783 SHEETS

Mon Feb 07 12:12:34 2022